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THE WORLD AFLAME! "RULE GOLDEN" BY DAMON KNIGHT

160 PAGES!



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SCIENCE FICTION ADVENTURES MAY 1954

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SCIENCE FICTION

ADVENTURES MAGAZINE

CONTENTS • MAY 1954 • VOL. 2, NO. 3

NOVEL

RULE GOLDEN, by *Damon Knight* 6

NOVELETTE

RAIN CHECK, by *Judith Merril* 126

SHORT STORIES

PINNACLE, by *Lee J. Fox* 75

COLLISION ORBIT, by *K. MacLean* 78

AMOEB-HUNT, by *R. H. Remington* 104

ARTICLES

FRANKENSTEIN, OR FRIDAY?, by *L. Jerome Stanton* 88

THE 183rd CONGRESS, by *Roy H. Millenson* 153

DEPARTMENTS

EDITORIAL 5

THE DISSECTING TABLE 121

FANMAG, by *Charles Lee Riddle* 146

THE CHART ROOM 156

CARTOON, by *Cato* 125

COVER BY CLARENCE DOORE

ILLUSTRATIONS BY BERWIN • EBEL • KRENKEL • MENDENHALL • SUSSMAN

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THE SCIENCE IN SCIENCE FICTION

William Tenn's article in the last issue of SFA stirred up a snake-pit of controversy. You'll find these pros and cons in THE CHART ROOM (including the essential parts of one letter that ran to 1500 words.) The shortest letter of them all seems to be the hardest to answer; an unsigned note with a Chicago postmark that says simply, *Now define the science in science fiction.*

The science fictionist's definition of science has been slowly changing since the days of *Air Wonder Stories*. In the beginning there were only the physical sciences, chemistry and physics—and of course astronomy to provide some place to go to and come from. The magazines were filled with lengthy and dull science quizzes which, as far as I know, nobody ever filled in. Just about the time the rocket ship plots were getting repetitious the wonders of Einsteinian theory were found. At once a thousand stories galloped off onto a million time-tracks and into an infinitude of parallel universes.

After mathematics came physiology and then the first major break with the touch, see and hear sciences. (The point can be argued that mathematics is a non-physical science; its application in SF, however, was always physical.) These were the mental sciences. The brain mutants, the super I.Q. boys and eventually the espers arrived. These themes cannot be handled in *Frank Merriwell* and his *Flying Machine* style, so their advent also ushered in a slightly higher level of writing technique.

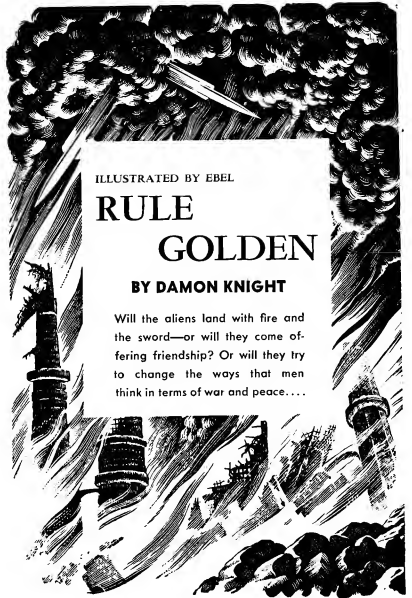
Modern SF has thrown the door wide to history, sociology, psychiatry and a host of other studies. All of these must be called sciences in the category of science fiction. All of them are legitimate fields for speculation and produce fascinating and controversial stories.

They also produce bad science-fiction and un-science. Un-science has been recognized in works of non-fiction. Mr. Velikovsky and his fantastic theories are the best example of this type of writing. False premises, unrealistic observations and false scientific facts all enter into his work.

There is a school of science fiction that exists and breeds on un-science. The writers who do this type of work usually have little or no knowledge of any of the sciences named above. Their plots are based on a false or hair-splitting premise; the stories have their feet firmly planted in mid-air.

Science fiction, in what might be called the classical form, takes

(Continued on page 152)



ILLUSTRATED BY EBEL

RULE GOLDEN

BY DAMON KNIGHT

Will the aliens land with fire and the sword—or will they come offering friendship? Or will they try to change the ways that men think in terms of war and peace....



I

A man in Des Moines kicked his wife when her back was turned. She was taken to the hospital, suffering from a broken coccyx.

So was he.

In Kansas City, Kansas, a youth armed with a .22 killed a schoolmate with one shot through the chest, and instantly dropped dead of heart-failure.

In Decatur two middleweights named Packy Morris and Leo Oshinsky simultaneously knocked each other out.

In St. Louis, a policeman shot down a fleeing bank robber and collapsed. The bank robber died; the policeman's condition was described as critical.

I read those items in the afternoon editions of the Washington papers, and although I noted the pattern, I wasn't much impressed. Every newspaperman knows that runs of coincidence are a dime a dozen; *everything* happens that way—plane crashes, hotel fires, suicide pacts, people running amok with rifles, people giving away all their money; name it and I can show you an epidemic of it in the files.

What I was actually looking for were stories originating in two places: my home town and Chillicothe, Missouri. Stories with those datelines had been

carefully cut out of the papers before I got them, so, for lack of anything better, I read everything datelined near either place. And that was how I happened to catch the Des Moines, Kansas City, Decatur and St. Louis items—all of those places will fit into a two-hundred-mile circle drawn with Chillicothe as its center.

I had asked for, but hadn't got, a copy of my own paper. That made it a little tough, because I had to sit there, in a Washington hotel room at night—and if you know a lonelier place and time, tell me—and wonder if they had really shut us down.

I knew it was unlikely. I knew things hadn't got that bad in America yet, by a long way. I knew they *wanted* me to sit there and worry about it, but I couldn't help it.

Ever since *La Prensa*, every newspaper publisher on this continent has felt a cold wind blowing down his back.

That's foolishness, I told myself. Not to wave the flag too much or anything, but the free speech tradition in this country is too strong; we haven't forgotten Peter Zenger.

And then it occurred to me that a lot of editors must have felt the same way, just before their papers were suppressed on

the orders of an American President named Abraham Lincoln.

So I took one more turn around the room and got back into bed, and although I had already read all the papers from bannerlines to box scores, I started leafing through them again, just to make a little noise. Nothing to do.

I had asked for a book, and hadn't got it. That made sense, too; there was nothing to do in that room, nothing to distract me, nothing to read except newspapers—and how could I look at a newspaper without thinking of the *Herald-Star*?

My father founded the *Herald-Star*—the *Herald* part, that is, the *Star* came later—ten years before I was born. I inherited it from him, but I want to add that I'm not one of those publishers by right of primogeniture whose only function consists in supplying sophomore by-lined copy for the front page; I started on the paper as a copy boy and I can still handle any job in a city room.

It was a good newspaper. It wasn't the biggest paper in the Middle West, or the fastest growing, or the loudest; but we'd had two Pulitzer prizes in the last fifteen years; we kept our political bias on the editorial page, and up to now we had

never knuckled under to anybody.

But this was the first time we had picked a fight with the U. S. Department of Defense.

Ten miles outside Chillicothe, Missouri, the Department had a little hundred-acre installation with three laboratory buildings, a small airfield, living quarters for a staff of two hundred and a one-story barracks. It was closed down in 1958 when the Phoenix-bomb program was officially abandoned.

Two years and ten months later, it was opened up again. A new and much bigger barracks went up in place of the old one; a two-company garrison moved in. Who else or what else went into the area, nobody knew for certain; but rumors came out.

We checked the rumors. We found confirmation. We published it, and we followed it up. Within a week we had a full-sized crusade started; we were asking for a congressional investigation, and it looked as if we might get it.

Then the President invited me and the publishers of twenty-odd other anti-administration dailies to Washington. Each of us got a personal interview with The Man; the Secretary of Defense was also present, to evade questions.

They asked me, as a personal

favor and in the interests of national security, to kill the Chillicothe series.

After asking a few questions, to which I got the answers I expected, I politely declined.

And here I was.

The door opened. The guard outside looked in, saw me on the bed, and stepped back out of sight. Another man walked in: stocky build, straight black hair turning gray; about fifty. Confident eyes behind rimless bifocals.

"Mr. Dahl. My name is Carlton Frisbee."

"I've seen your picture," I told him. Frisbee was the Under Secretary of Defense, a career man, very able; he was said to be the brains of the Department.

He sat down facing me. He didn't ask permission, and he didn't offer to shake hands, which was intelligent of him.

"How do you feel about it now?" he asked.

"Just the same."

He nodded. After a moment he said, "I'm going to try to explain our position to you, Mr. Dahl."

I grinned at him. "The word you're groping for is 'awkward.'"

"No. It's true that we can't let you go in your present state of mind, but we can keep you.

If necessary, you will be killed, Mr. Dahl. That's how important Chillicothe is."

"Nothing," I said, "is that important."

He cocked his head at me. "If you and your family lived in a community surrounded by hostile savages, who were kept at bay only because you had rifles—and if someone proposed to give them rifles—well?"

"Look," I said, "let's get down to cases. You claim that a new weapon is being developed at Chillicothe, is that right? It's something revolutionary, and if the Russians got it first we would be sunk, and so on. In other words, the Manhattan Project all over again."

"Right."

"Okay. Then why has Chillicothe got twice the military guard it had when it was an atomic research center, and a third of the civilian staff?"

He started to speak.

"Wait a minute, let me finish. Why, of the fifty-one scientists we have been able to trace to Chillicothe, are seventeen linguists and philologists, three organic chemists, five physiologists, *twenty-six psychologists, and not one single physicist?*"

"In the first place—were you about to say something?"

"All right, go ahead."

"You know I can't answer

those questions factually, Mr. Dahl, but speaking conjecturally, can't you conceive of a psychological weapon?"

"You can't answer them at all. My third question is, why have you got a wall around that place—not just a stockade, a wall, with guard towers on it? Never mind speaking conjecturally. Now I'll answer your question. Yes, I can conceive of psychological experimentation that you might call weapons research, I can think of several possibilities, and there isn't a damn one of them that wouldn't have to be used on American citizens before you could get anywhere near the Russians with it."

His eyes were steady behind the bright lenses. He didn't say, "We seem to have reached a deadlock," or "Evidently it would be useless to discuss this any further"; he simply changed the subject.

"There are two things we can do with you, Mr. Dahl; the choice will be up to you. First, we can indict you for treason and transfer you to a Federal prison to await trial. Under the revised Alien and Sedition Act, we can hold you incommunicado for at least twelve months, and, of course, no bail will be set. I feel bound to point out to you that in this case, it would be

impossible to let you come to trial until after the danger of breaching security at Chillicothe is past. If necessary, as I told you, you would die in prison."

"Second, we can admit you to Chillicothe itself as a press representative. We would, in this case, allow you full access to all non-technical information about the Chillicothe project as it develops, with permission to publish as soon as security is lifted. You would be confined to the project until that time, and I can't offer you any estimate of how long it might be. In return, you would be asked to write letters plausibly explaining your absence to your staff and to close friends and relatives, and—providing that you find Chillicothe to be what we say it is and not what you suspect—to work out a series of stories for your newspaper which will divert attention from the project."

He seemed to be finished. I said, "Frisbee, I hate to tell you this, but you're overlooking a point. Let's just suppose for a minute that Chillicothe is what I think it is. How do I know that once I got inside I might not somehow or other find myself writing that kind of copy whether I felt like it or not?"

He nodded. "What guarantees would you consider sufficient?"

I thought about that. It was a

nice point. I was angry enough, and scared enough, to feel like pasting Frisbee a good one and then seeing how far I could get; but one thing I couldn't figure out, and that was why, if Frisbee wasn't at least partly on the level, he should be here at all.

If they wanted me in Chillicothe, they could drag me there.

After awhile I said, "Let me call my managing editor and tell him where I'm going. Let me tell him that I'll call him again—on a video circuit—within three days after I get there, when I've had time to inspect the whole area. And that if I don't call, or if I look funny or sound funny, he can start worrying."

He nodded again. "Fair enough." He stood up. "I won't ask you to shake hands with me now, Mr. Dahl; later on I hope you will." He turned and walked to the door, unhurried, calm, imperturbable, the way he had come in.

Six hours later I was on a westbound plane.

That was the first day.

The second day, an inexplicable epidemic broke out in the slaughterhouses of Chicago and surrounding areas. The symptoms were a sudden collapse followed by nausea, incontinence, anemia, shock, and in some cases, severe pain in the occipi-

tal and cervical regions. Or: as one victim, an A. F. of L. knacker with twenty-five years' experience in the nation's abattoirs, succinctly put it: "It felt just like I was hit in the head."

Local and Federal health authorities immediately closed down the affected slaughterhouses, impounded or banned the sale of all supplies of fresh meat in the area, and launched a sweeping investigation. Retail food stores sold out their stocks of canned, frozen and processed meats early in the day; seafood markets reported their largest volume of sales in two decades. Eggs and cheese were in short supply.

Fifty-seven guards, assistant wardens and other minor officials of the Federal penitentiary at Leavenworth, Kansas, submitted a group resignation to Warden Hermann R. Longo. Their explanation of the move was that all had experienced a religious conversion, and that assisting in the forcible confinement of other human beings was inconsonant with their new beliefs.

Near Louisville, Kentucky, neighbors attracted by cries for help found a forty-year-old woman and her twelve-year-old daughter both severely burned. The woman, whose clothing was not even scorched although her

upper body was covered with first and second degree burns, admitted pushing the child into a bonfire, but in her hysterical condition was unable to give a rational account of her own injuries.

There was also a follow-up on the Des Moines story about the man who kicked his wife. Remember that I didn't say he had a broken coccyx; I said he was suffering from one. A few hours after he was admitted to the hospital he stopped doing so, and he was released into police custody when X-rays showed no fracture.

Straws in the wind.

At five-thirty that morning, I was waking up my managing editor, Eli Freeman, with a monitored long-distance call—one of Frisbee's bright young men waiting to cut me off if I said anything I shouldn't. The temptation was strong, just the same, but I didn't.

From six to eight-thirty I was on a plane with three taciturn guards. I spent most of the time going over the last thirty years of my life, and wondering how many people would remember me two days after they wrapped my obituary around their garbage.

We landed at the airfield about a mile from the Project proper, and after one of my hitherto silent friends had fin-

ished a twenty-minute phone call, a limousine took us over to a long, temporary-looking frame building just outside the wall. It took me only until noon to get out again; I had been fingerprinted, photographed, stripped, examined, X-rayed, urinanalyzed, blood-tested, showered, disinfected, and given a set of pinks to wear until my own clothes had been cleaned and fumigated. I also got a numbered badge which I was instructed to wear on the left chest at all times, and an identity card to keep in my wallet when I got my wallet back.

Then they let me through the gate, and I saw Chillicothe.

I was in a short cul-de-sac formed by the gate and two walls of masonry, blank except for firing slits. Facing away from the gate I could see one of the three laboratory buildings a good half-mile away. Between me and it was a geometrical forest of poles with down-pointing reflectors on their crossbars. Floodlights.

I didn't like that. What I saw a few minutes later I liked even less. I was bouncing across the flat in a jeep driven by a stocky, moon-faced corporal; we passed the first building, and I saw the second.

There was a ring of low pill-boxes around it. And their guns

pointed *inward*, toward the building.

Major General Parst was a big, bald man in his fifties, whose figure would have been more military if the Prussian corset had not gone out of fashion. I took him for a Pentagon soldier; he had the Pentagon smoothness of manner, but there seemed to be a good deal more under it than the usual well-oiled vacancy. He was also, I judged, a very worried man.

"There's just one thing I'd like to make clear to you at the beginning, Mr. Dahl. I'm not a grudge-holding man, and I hope you're not either, because there's a good chance that you and I will be seeing a lot of each other during the next three or four years. But I thought it might make it a little easier for you to know that you're not the only one with a grievance. You see this isn't an easy job, it never has been. I'm just stating the fact: it's been considerably harder since your newspaper took an interest in us." He spread his hands and smiled wryly.

"Just what is your job, General?"

"You mean, what is Chilli-cothe." He snorted. "I'm not going to waste my breath telling you."

My expression must have changed.

"Don't misunderstand me—I mean that if I told you, you wouldn't believe me. I didn't, myself. I'm going to have to show you." He stood up, looking at his wristwatch. "I have a little more than an hour. That's more than enough for the demonstration, but you're going to have a lot of questions afterward. We'd better start."

He thumbed his intercom. "I'll be in Section One for the next fifteen minutes."

When we were in the corridor outside he said, "Tell me something, Mr. Dahl: I suppose it occurred to you that if you were right in your suspicions of Chilli-cothe, you might be running a certain personal risk in coming here, in spite of any precautions you might take?"

"I considered the possibility. I haven't seen anything to rule it out yet."

"And still, I gather that you chose this alternative almost without hesitation. Why was that, if you don't mind telling me?"

It was a fair question. There's nothing very attractive about a Federal prison, but at least they don't saw your skull open there, or turn your mind inside out with drugs. I said, "Call it curiosity."

He nodded. "Yes. A very potent force, Mr. Dahl. More mountains have been moved by it than by faith."

We passed a guard with a T44, then a second, and a third. Finally Parst stopped at the first of three metal doors. There was a small pane of thick glass set into it at eye-level, and what looked like a microphone grill under that. Parst spoke into the grill: "Open up Three, sergeant."

"Yes, sir."

I followed Parst to the second door. It slid open as we reached it and we walked into a large, empty room. The door closed behind us with a thud and a solid *click*. Both sounds rattled back startlingly; the room was solid metal, I realized—floor, walls and ceiling.

In the opposite wall was another heavy door. To my left was a huge metal hemisphere, painted the same gray as the walls, with a machine-gun's snout projecting through a horizontal slit in a deadly and impressive manner.

Echoes blurred the General's voice: "This is Section One. We're rather proud of it. The only entrance to the central room is here, but each of the three others that adjoin it is covered from a gun-turret like that one. The gun rooms are ac-

cessible only from the corridors outside."

He motioned me over to the other door. "This door is double," he said. "It's going to be an airlock eventually, we hope. All right, sergeant."

The door slid back, exposing another one a yard farther in; like the others, it had a thick inset panel of glass.

Parst stepped in and waited for me. "Get ready for a shock," he said.

I loosened the muscles in my back and shoulders; my wind isn't what it used to be, but I can still hit. *Get ready for one yourself, I thought, if this is what I think it is.*

I walked into the tiny room, and heard the door thump behind me. Parst motioned to the glass pane.

I saw a room the size of the one behind me. There was a washbasin in it, and a toilet, and what looked like a hammock slung across one corner, and a wooden table with papers and a couple of pencils or crayons on it.

And against the far wall, propped upright on an ordinary lunch-counter stool, was something I couldn't recognize at all; I saw it and I didn't see it. If I had looked away then, I couldn't possibly have told anyone what it looked like.

Then it stirred slightly, and I realized that it was alive.

I saw that it had eyes.

I saw that it had arms.

I saw that it had legs.

Very gradually the rest of it came into focus. The top about four feet off the floor, a small truncated cone about the size and shape of one of those cones of string that some merchants keep to tie packages. Under that came the eyes, three of them. They were round and oyster-gray, with round black pupils, and they faced in different directions. They were set into a flattened bulb of flesh that just fitted under the base of the cone; there was no nose, no ears, no mouth, and no room on the flesh for any.

The cone was black; the rest of the thing was a very dark, shiny blue-gray.

The head, if that is the word, was supported by a thin neck from which a sparse growth of fuzzy spines curved down and outward, like a botched attempt at feathers. The neck thickened gradually until it became the torso. The torso was shaped something like a bottle gourd, except that the upper lobe was almost as large as the lower. The upper lobe expanded and contracted evenly, all around, as the thing breathed.

Between each arm and the

next, the torso curved inward to form a deep vertical gash.

There were three arms and three legs, spaced evenly around the body so that you couldn't tell front from back. The arms sprouted just below the top of the torso, the legs from its base. The legs were bent only slightly to reach the floor; each hand, with five slender, shapeless fingers, rested on the opposite-number thigh. The feet were a little like a chicken's. . . .

I turned away and saw Parst; I had forgotten he was there, and where I was, and who I was. I don't recall planning to say anything, but I heard my own voice, faint and hoarse:

"Did you *make* that?"

II

"Stop it!" he said sharply.

I was trembling. I had fallen into a crouch without realizing it, weight on my toes, fists clenched.

I straightened up slowly and put my hands into my pockets. "Sorry."

The speaker rasped.

"*Is everything all right, sir?*"

"Yes, sergeant," said Parst. "We're coming out." He turned as the door opened, and I followed him, feeling all churned up inside.

Halfway down the corridor I

stopped. Parst turned and looked at me.

"Ithaca," I said.

Three months back there had been a Monster-from-Mars scare in and around Ithaca, New York; several hundred people had seen, or claimed to have seen, a white wingless aircraft hovering over various out-of-the-way places; and over thirty, including one very respectable Cornell professor, had caught sight of something that wasn't a man in the woods around Cayuga Lake. None of these people had got close enough for a good look, but nearly all of them agreed on one point—the thing walked erect, but had too many arms and legs. . . .

"Yes," said Parst. "That's right. But let's talk about it in my office, Mr. Dahl."

I followed him back there. As soon as the door was shut I said, "Where did it come from? Are there any more of them? What about the ship?"

He offered me a cigarette, I took it and sat down, hitting the chair by luck.

"Those are just three of the questions we can't answer," he said. "He claims that his home world revolves around a sun in our constellation of Aquarius; he says that it isn't visible from Earth. He also—"

I said, "He talks—? You've

taught him to speak English?" For some reason that was hard to accept; then I remembered the linguists.

"Yes. Quite well, considering that he doesn't have vocal cords like ours. He uses a tympanum under each of those vertical openings in his body—those are his mouths. His name is Aza-Kra, by the way. I was going to say that he also claims to have come here alone. As for the ship, he says it's hidden, but he won't tell us where. We've been searching that area, particularly the hills near Cayuga and the lake itself, but we haven't turned it up yet. It's been suggested that he may have launched it under remote control and put it into an orbit somewhere outside the atmosphere. The Lunar Observatory is watching for it, and so are the orbital stations, but I'm inclined to think that's a dead end. In any case, that's not my responsibility. He had some gadgets in his possession when he was captured, but even those are being studied elsewhere. Chillicothe is what you saw a few minutes ago, and that's all it is. God knows it's enough."

His intercom buzzed. "Yes."

"Dr. Meshevski would like to talk to you about the technical vocabularies, sir."

"Ask him to hold it until the conference if he possibly can."

"Yes sir."

"Two more questions we can't answer," Parst said, "are what his civilization is like and what he came here to do. I'll tell you what he says. The planet he comes from belongs to a galactic union of highly advanced, peace-loving races. He came here to help us prepare ourselves for membership in that union."

I was trying hard to keep up, but it wasn't easy. After a moment I said, "Suppose it's true?"

He gave me the cold eye.

"All right, suppose it's true." For the first time, his voice was impatient. "Then suppose the opposite. Think about it for a minute."

I saw where he was leading me, but I tried to circle around to it from another direction; I wanted to reason it out for myself. I couldn't make the grade; I had to fall back on analogies, which are a kind of thinking I distrust.

You were a cannibal islander, and a missionary came along. He meant well, but you thought he wanted to steal your yam-fields and your wives, so you chopped him up and ate him for dinner.

Or;

You were a West Indian, and Columbus came along. You treated him as a guest, but he made a slave of you, worked you till you dropped, and finally wiped

out your whole nation, to the last woman and child.

I said, "Awhile ago you mentioned three or four years as the possible term of the Project. Did you—?"

"That wasn't meant to be taken literally," he said. "It may take a lifetime." He was staring at his desk-top.

"In other words, if nothing stops you, you're going to go right on just this way, sitting on this thing. Until What's-his-name dies, or his friends show up with an army, or something else blows it wide open."

"That's right."

"Well, damn it, don't you see that's the one thing you can't do? Either way you guess it, that won't work. If he's friendly—"

Parst lifted a pencil in his hand and slapped it palm-down against the desk-top. His mouth was tight. "It's *necessary*," he said.

After a silent moment he straightened in his chair and spread the fingers of his right hand at me. "One," he said, touching the thumb: "weapons. Leaving everything else aside, if we can get one strategically superior weapon out of him, or the theory that will enable us to build one, then we've *got* to do it and we've *got* to do it in secret."

The index finger. "Two: the spaceship." Middle finger. "Three: the civilization he comes from. If they're planning to attack us we've got to find that out, and when, and how, and what we can do about it." Ring finger. "Four: Aza-Kra himself. If we don't hold him in secret we can't hold him at all, and how do we know what he might do if we let him go? There isn't a single possibility we can rule out. Not one."

He put the hand flat on the desk. "Five, six, seven, eight, nine, ten, infinity. Biology, psychology, sociology, ecology, chemistry, physics, right down the line. Every science. In any one of them we might find something that would mean the difference between life and death for this country or this whole planet."

He stared at me for a moment, his face set. "You don't have to remind me of the other possibilities, Dahl. I know what they are; I've been on this project for thirteen weeks. I've also heard of the Golden Rule, and the Ten Commandments, and the Constitution of the United States. But this is *the survival of the human race* we're talking about."

I opened my mouth to say "That's just the point," or something equally stale, but I shut it

again; I saw it was no good. I had one argument—that if this alien ambassador was what he claimed to be, then the whole world had to know about it; any nation that tried to suppress that knowledge, or dictate the whole planet's future, was committing a crime against humanity. That, on the other hand, if he was an advance agent for an invasion fleet, the same thing was true only a great deal more so.

Beyond that I had nothing but instinctive moral conviction; and Parst had that on his side too; so did Frisbee and the President and all the rest. Being who and what they were, they had to believe as they did. Maybe they were right.

Half an hour later, the last thought I had before my head hit the pillow was, *Suppose there isn't any Aza-Kra? Suppose that thing was a fake, a mechanical dummy?*

But I knew better, and I slept soundly.

That was the second day. On the third day, the front pages of the more excitable newspapers were top-heavy with forty-eight-point headlines. There were two Chicago stories. The first, in the early afternoon editions, announced that every epidemic victim had made a complete recovery, that health department

experts had been unable to isolate any disease-causing agent in the stock awaiting slaughter, and that although several cases not involving stockyard employees had been reported, not one had been traced to consumption of infected meat. A Chicago epidemiologist was quoted as saying, "It could have been just a gigantic coincidence."

The later story was a lulu. Although the slaughterhouses had not been officially reopened or the ban on fresh-meat sales rescinded, health officials allowed seventy of the previous day's victims to return to work as an experiment. Within half an hour every one of them was back in the hospital, suffering from a second, identical attack.

Oddly enough—at first glance—sales of fresh meat in areas outside the ban dropped slightly in the early part of the day ("They say it's all right, but you won't catch me taking a chance"), rose sharply in the evening ("I'd better stock up before there's a run on the butcher shops").

Warden Longo, in an unprecedented move, added his resignation to those of the fifty-seven "conscience" employees of Leavenworth. Well-known as an advocate of prison reform, Longo explained that his subordinates' example had convinced him that

only so dramatic a gesture could focus the American public's attention upon the injustice and inhumanity of the present system.

He was joined by two hundred and three of the Federal institution's remaining employees, bringing the total to more than eighty per cent of Leavenworth's permanent staff.

The movement was spreading. In Terre Haute, Indiana, eighty employees of the Federal penitentiary were reported to have resigned. Similar reports came from the State prisons of Iowa, Missouri, Illinois and Indiana, and from city and county correctional institutions from Kansas City to Cincinnati.

The war in Indo-China was crowded back among the stock-market reports. Even the official announcements that the first Mars rocket was nearing completion in its sublunar orbit—front-page news at any normal time—got an inconspicuous paragraph in some papers and was dropped entirely by others.

But I found an item in a St. Louis paper about the policeman who had collapsed after shooting a criminal. He was dead.

I woke up a little before dawn that morning, having had a solid fifteen hours' sleep. I found the cafeteria and hung around until it opened. That was where

Captain Ritchy-loo tracked me down.

He came in as I was finishing my second order of ham and eggs, a big, blond, swimming-star type, full of confidence and good cheer. "You must be Mr. Dahl. My name is Ritchy-loo."

I let him pump my hand and watched him sit down. "How do you spell it?" I asked him.

He grinned happily. "It is a tough one, isn't it? French. R, i, c, h, e, l, i, e, u."

Richelieu. Ritchy-loo.

I said, "What can I do for you, Captain?"

"Ah, it's what I can do for you, Mr. Dahl. You're a VIP around here, you know. You're getting the triple-A guided tour, and I'm your guide."

I hate people who are cheerful in the morning.

We went out into the pale glitter of early-morning sunshine on the flat; the floodlight poles and the pillboxes trailed long, mournful shadows. There was a jeep waiting, and Ritchy-loo took the wheel himself.

We made a right turn around the corner of the building and then headed down one of the diagonal avenues between the poles. I glanced into the firing slit of one of the pillboxes as we passed it, and saw the gleam of somebody's spectacles.

"That was B building that we

just came out of," said the captain. "Most of the interesting stuff is there, but you want to see everything, naturally, so we'll go over to C first and then back to A."

The huge barracks, far off to the right, looked deserted; I saw a few men in fatigues here and there, spearing stray bits of paper. Beyond the building we were heading for, almost against the wall, tiny figures were leaping rhythmically, opening and closing like so many animated scissors.

It was a well-policed area, at any rate; I watched for awhile, out of curiosity, and didn't see a single cigarette paper or gum wrapper.

To the left of the barracks and behind it was a miniature town—neat one-story cottages, all alike, all the same distance apart. The thing that struck me about it was that there were none of the signs of a permanent camp—no borders of whitewashed stones, no trees, no shrubs, no flowers. *No wives*, I thought.

"How's morale here, Captain?" I asked.

"Now, it's funny you should ask me that. That happens to be my job, I'm the Company B morale officer. Well, I should say that all things considered, we aren't doing too badly. Of course, we have a few difficulties. These

men are here on eighteen-month assignments, and that's a kind of a long time without passes or furloughs. We'd like to make the hitches shorter, naturally, but of course you understand that there aren't too many fresh but seasoned troops available just now."

"No."

"But, we do our best. Now here's C building."

Most of C building turned out to be occupied by chemical laboratories: long rows of benches covered by rank growths of glassware, only about a fifth of it working, and nobody watching more than a quarter of that.

"What are they doing here?"

"Over my head," said Ritchy-loo cheerfully. "Here's Dr. Vitale, let's ask him."

Vitale was a little sharp-featured man with a nervous blink. "This is the atmosphere section," he said. "We're trying to analyze the atmosphere which the alien breathes. Eventually we hope to manufacture it."

That was a point that hadn't occurred to me. "He can't breathe our air?"

"No, no. Altogether different."

"Well, where does he get the stuff he does breathe, then?"

The little man's lips worked. "From that cone-shaped mechanism on the top of his head.

An atmosphere plant that you could put in your pocket. Completely incredible. We can't get an adequate sample without taking it off him, and we can't take it off him without killing him. We have to deduce what he breathes *in* from what he breathes *out*. *Very difficult*." He went away.

All the same, I couldn't see much point in it. Presumably if Aza-Kra couldn't breathe our air, we couldn't breathe his—so anybody who wanted to examine him would have to wear an oxygen tank and a breathing mask.

But it was obvious enough, and I got it in another minute. If the prisoner didn't have his own air-supply, it would be that much harder for him to break out past the gun rooms and the guards in the corridors and the pillboxes and the floodlights and the wall. . . .

We went on, stopping at every door. There were storerooms, sleeping quarters, a few offices. The rest of the rooms were empty.

Ritchy-loo wanted to go on to A building, but I was being perversely thorough, and I said we would go through the barracks and the company towns first. We did: it took us three hours, and thinned down Ritchy-loo's stream of cheerful conversation

to a trickle. We looked everywhere, and of course we did not find anything that shouldn't have been there.

A building was the recreation hall. Canteen, library, gymnasium, movie theater, PX, swimming pool. It was also the project hospital and dispensary. Both sections were well filled.

So we went back to B. And it was almost noon, so we had lunch in the big air-conditioned cafeteria. I didn't look forward to it; I expected that rest and food would turn on Ritchy-loo's conversational spigot again, and if he didn't get any response to the first three or four general topics he tried, I was perfectly sure he would begin telling me jokes.

Nothing of the kind happened. After a few minutes I saw why; or thought I did. Looking around the room, I saw face after face with the same blank look on it; there wasn't a smile or an animated expression in the place. And now that I was paying attention I noticed that the sounds were odd, too. There were more than a hundred people in the room, enough to set up a beehive roar; but there was so little talking going on that you could pick out individual sentences with ease, and they were all trochaic — *Want some sugar?* *No, thanks.* Like that.

It was infectious; I was beginning to feel it now myself—an execution-chamber kind of mood, a feeling that we were all shut up in a place that we couldn't get out of, and where something horrible was going to happen. Unless you've ever been in a group made up of people who had that feeling and were reinforcing it in each other, it's indescribable; but it was very real and very hard to take.

Ritchy-loo left half a chop on his plate; I finished mine, but it choked me.

In the corridor outside I asked him, "It it always as bad as that?"

"You noticed it too? That place gives me the creeps. I don't know why. It's the same way in the movies, too, lately—wherever you get a lot of these people together. I just don't understand it." For a second longer he looked worried and thoughtful, and then he grinned suddenly. "I don't want to say anything against civilians, Mr. Dahl, but I think that bunch is pretty far gone."

I could have hugged him. Civilians! If Ritchy-loo was more than six months away from a summer-camp counsellor's job, I was a five-star general.

We started at that end of the corridor and worked our way down. We looked into a room

with an X-ray machine and a fluoroscope in it, and a dark-room, and a room full of racks and filing cabinets, and a long row of offices.

Then Ritchy-loo opened a door that revealed two men standing on opposite sides of a desk, spouting angry German at each other. The tall one noticed us after a second, said, "St, 'st," to the other, and then to us, coldly. "You might, at least, knock."

"Sorry, gentlemen," said Ritchy-loo brightly. He closed the door and went on to the next on the same side. This opened onto a small, bare room with nobody in it but a stocky man with corporal's stripes on his sleeve. He was sitting hunched over, elbows on knees, hands over his face. He didn't move or look up.

I have a good ear, and I had managed to catch one sentence of what the fat man next door had been saying to the tall one. It went like this: "Nein, nein, das ist bestimmt nicht die Klaustrophobie; Ich sage dir, es ist das dreifüssige Tier, das sie stört."

My college German came back to me when I prodded it, but it creaked a little. While I was still working at it, I asked Ritchy-loo, "What was that?"

"Psychiatric section," he said.

"You get many psycho cases here?"

"Oh, no," he said. "Just the normal percentage, Mr. Dahl. Less, in fact."

The captain was a poor liar.

"Klaustrophobie" was easy, of course. "Dreifüssige Tier" stopped me until I remembered that the German for "zoo" is "Tiergarten." Dreifüssige Tier: the three-footed beast. The triped.

The fat one had been saying to the tall one, "No, no, it is absolutely not claustrophobia; I tell you, it's the triped that's disturbing them."

Three-quarters of an hour later we had peered into the last room in B building: a long office full of IBM machines. We had now been over every square yard of Chillicothe, and I had seen for myself that no skullduggery was going forward anywhere in it. That was the idea behind the guided tour, as Ritchy-loo was evidently aware.

He said, "Well, that just about wraps it up, Mr. Dahl. By the way, the General's office asked me to tell you that if it's all right with you, they'll set up that phone call for you for four o'clock this afternoon."

I looked down at the rough map of the building I'd been drawing as we went along. "There's one place we haven't

been, Captain," I said. "Section One."

"Oh, well that's right, that's right. You saw that yesterday, though, didn't you, Mr. Dahl?"

"For about two minutes. I wasn't able to take much of it in. I'd like to see it again, if it isn't too much trouble. Or even if it is."

Ritchy-loo laughed heartily. "Good enough. Just wait a second, I'll see if I can get you a clearance on it." He walked down the corridor to the nearest wall phone.

After a few moments he beckoned me over, palming the receiver. "The General says there are two research groups in there now and it would be a little crowded. He says he'd like you to postpone it if you think you can."

"Tell him that's perfectly all right, but in that case I think we'd better put off the phone call, too."

He repeated the message, and waited. Finally, "Yes. Yes, uh-huh. Yes, I've got that. All right."

He turned to me. "The General says it's all right for you to go in for half an hour and watch, but he'd appreciate it if you'll be careful not to distract the people who're working in there."

I had been hoping the General would say no. I wanted to see the

alien again, all right, but what I wanted the most was time.

This was the second day I had been at Chillicothe. By tomorrow at the latest I would have to talk to Eli Freeman; and I still hadn't figured out any sure, safe way to tell him that Chillicothe was a legitimate research project, not to be sniped at by the *Herald-Star* — and make him understand that I didn't mean a word of it.

I could simply refuse to make the call, or I could tell him as much of the truth as I could before I was cut off—two words, probably—but it was a cinch that call would be monitored at the other end, too; that was part of what Ritchy-loo meant by "setting up the call." Somebody from the FBI would be sitting at Freeman's elbow . . . and I wasn't telling myself fairy tales about Peter Zenger any more.

They would shut the paper down, which was not only the thing I wanted least in the world but a thing that would do nobody any good.

I wanted Eli to spread the story by underground channels—spread it so far, and time the release so well, that no amount of censorship could kill it.

Treason is a word every man has to define for himself.

Ritchy-loo did the honors for

me at the gun-room door, and then left me, looking a little envious. I don't think he had ever been inside Section One.

There was somebody ahead of me in the tiny antechamber, I found: a short, wide-shouldered man with a sheep-dog tangle of black hair.

He turned as the door closed behind me. "Hi. Oh—you're Dahl, aren't you?" He had a young, pleasant, meaningless face behind dark-rimmed glasses. I said yes.

He put a half-inch of cigarette between his lips and shook hands with me. "Somebody pointed you out. Glad to know you; my name's Donnelly. Physical psych section—very junior." He pointed through the spy-window. "What do you think of him?"

Aza-Kra was sitting directly in front of the window; his lunch-counter stool had been moved into the center of the room. Around him were four men: two on the left, sitting on folding chairs, talking to him and occasionally making notes; two on the right, standing beside a waist-high enclosed mechanism from which wires led to the upper lobe of the alien's body. The ends of the wires were taped against his skin.

"That isn't an easy question," I said.

Donnelly nodded without in-

terest. "That's my boss there," he said, "the skinny, gray-haired guy on the right. We get on each other's nerves. If he gets that setup operating this session, I'm supposed to go in and take notes. He won't, though."

"What is it?"

"Electroencephalograph. See, his brain isn't in his head, it's in his upper thorax there. Too much insulation in the way. We can't get close enough for a good reading without surgery. I say we ought to drop it till we get permission, but Hendricks thinks he can lick it. Those two on the other side are interviewers. Like to hear what they're saying?"

He punched one of two buttons set into the door beside the speaker grill, under the spy-window. "If you're ever in here alone, remember you can't get out while this is on. You turn on the speaker here, it turns off the one in the gun room. They wouldn't be able to hear you ask to get out."

Inside, a monotonous voice was saying, "... have that here, but what exactly do you mean by ..."

"I ought to be in physiology," Donnelly said, lowering his voice. "They have all the fun. You see his eyes?"

I looked. The center one was staring directly toward us; the

other two were tilted, almost out of sight around the curve of that bulb of blue-gray flesh.

"... in other words, just what is the nature of this energy, is it—uh—transmitted by waves, or ..."

"He can look three ways at once," I said.

"Three, with binocular," Donnelly agreed. "Each eye can function independently or couple with the one on either side. So he can have a series of overlapping monocular images, all the way around, or he can have up to three binocular images. They focus independently, too. He could read a newspaper and watch for his wife to come out of the movie across the street."

"Wait a minute," I said. "He has six eyes, not three?"

"Sure. Has to, to keep the symmetry and still get binocular vision."

"Then he hasn't got any front or back," I said slowly.

"No, that's right. He's tri-laterally symmetrical. Drive you crazy to watch him walk. His legs work the same way as his eyes—any one can pair up with either of the others. He wants to change direction, he doesn't have to turn around. I'd hate to try to catch him in an open field."

"How did they catch him?" I asked.

"Luckiest thing in the world. Found him in the woods with two broken ankles. Now look at his hands. What do you see?"

The voice inside was still droning; evidently it was a long question. "Five fingers," I said.

"Nope." Donnelly grinned. "One finger, four thumbs. See how they oppose, those two on either side of the middle finger? He's got a better hand than ours. One *hell* of an efficient design. Brain in his thorax where it's safe, six eyes on a stalk—trachea up there too, no connection with the esophagus, so he doesn't need an epiglottis. Three of everything else. He can lose a leg and still walk, lose an arm and still type, lose two eyes and still see better than we do. He can lose—"

I didn't hear him. The interviewer's voice had stopped, and Aza-Kra's had begun. It was frightening, because it was a buzzing and it was a voice.

I couldn't take in a word of it; I had enough to do absorbing the fact that there were words.

Then it stopped, and the interviewer's ordinary, flat Middle Western voice began again.

"—And just try to sneak up behind him," said Donnelly. "I dare you."

Again Aza-Kra spoke briefly, and this time I saw the flesh at the side of his body, where the

two lobes flowed together, bulge slightly and then relax.

"He's talking with one of his mouths," I said. "I mean, one of those—" I took a deep breath. "If he breathes through the top of his head, and there's no connection between his lungs and his vocal organs, then where the hell does he get the air?"

"He belches. Not as inconvenient as it sounds. You could learn to do it if you had to." Donnelly laughed. "Not very fragrant, though. Watch their faces when he talks."

I watched Aza-Kra's instead—what there was of it: one round, expressionless, oyster-colored eye staring back at me. With a human opponent, I was thinking, there were a thousand little things that you relied on to help you: facial expressions, mannerisms, signs of emotion. But Parst had been right when he said, *There isn't a single possibility we can rule out. Not one.* And so had the fat man: *It's the triped that's disturbing them.* And Ritchy-loo: *It's the same way . . . wherever you get a lot of these people together.*

And I still hadn't figured out any way to tell Freeman what he had to know.

I thought I could arouse Eli's suspicion easily enough; we knew each other well enough for a word or a gesture to mean a

good deal. I could make him look for hidden meanings. But how could I hide a message so that Eli would be more likely to dig it out than a trained FBI cryptologist?

I stared at Aza-Kra's glassy eye as if the answer were there. It was going to be a video circuit, I told myself. Donnelly was still yattering in my ear, and now the alien was buzzing again, but I ignored them both. Suppose I broke the message up into one-word units, scattered them through my conversation with Eli, and marked them off somehow—by twitching a finger, or blinking my eyelids?

A dark membrane flicked across the alien's oyster-colored eye.

A moment later, it happened again.

Donnelly was saying, ". . . intercoastal membranes, apparently. But there's no trace of . . ."

"Shut up a minute, will you?" I said. "I want to hear this."

The inhuman voice, the voice that sounded like the articulate buzzing of a giant insect, was saying, "Comparison not possible, excuse me. If (*blink*) you try to understand in words you know, you (*blink*) tell yourself you wish (*blink*) to understand, but knowledge escape (*blink*) you. Can only show (*blink*) you from beginning, one (*blink*)

little, another little. Not possible to carry all knowledge in one hand (*blink*)."

If you wish escape, show one hand.

I looked at Donnelly. He had moved back from the spy-window; he was lighting a cigarette, frowning at the match-flame. His mouth was sullen.

I put my left hand flat against the window. I thought, *I'm dreaming*.

The interviewer said querulously, "... getting us nowhere. Can't you—"

"Wait," said the buzzing voice. "Let me say, please. Ignorant man hold (*blink*) burning stick, say, this is breath (*blink*) of the wood. Then you show him flash-light—"

I took a deep breath, and held it.

Around the alien, four men went down together, folding over quietly at waist and knee, sprawling on the floor. I heard a thump behind me.

Donnelly was lying stretched out along the wall, his head tilted against the corner. The cigarette had fallen from his hand.

I looked back at Aza-Kra. His head turned slightly, the dark flesh crinkling. Two eyes stared back at me through the window.

"Now you can breathe," said the monster.

III

I let out the breath that was choking me and took another. My knees were shaking.

"What did you do to them?"

"Put them to sleep only. In a few minutes I will put the others to sleep. After you are outside the doors. First we will talk."

I glanced at Donnelly again. His mouth was ajar; I could see his lips fluttering as he breathed.

"All right," I said, "talk."

"When you leave," buzzed the voice, "you must take me with you."

Now it was clear. He could put people to sleep, but he couldn't open locked doors. He had to have help.

"No deal," I said. "You might as well knock me out, too."

"Yes," he answered, "you will do it. When you understand."

"I'm listening."

"You do not have to agree now. I ask only this much. When we are finished talking, you leave. When you are past the second door, hold your breath again. Then go to the office of General Parst. You will find there papers about me. Read them. You will find also keys to open gun room. Also, handcuffs. Special handcuffs, made to fit me. Then you will think, if Aza-Kra is not what he says, would he agree to this? Then you will

come back to gun room, use controls there to open middle door. You will lay handcuffs down, where you stand now, then go back to gun room, open inside door. I will put on the handcuffs. You will see that I do it. And then you will take me with you."

... I said, "Let me think."

The obvious thing to do was to push the little button that turned on the audio circuit to the gun room, and yell for help; the alien could then put everybody to sleep from here to the wall, maybe, but it wouldn't do any good. Sooner or later he would have to let up, or starve to death along with the rest of us. On the other hand if I did what he asked—*anything* he asked—and it turned out to be the wrong thing, I would be guilty of the worst crime since Pilate's.

But I thought about it, I went over it again and again, and I couldn't see any loophole in it for Aza-Kra. He was leaving it up to me—if I felt like letting him out after I'd seen the papers in Parst's office, I could do so. If I didn't, I could still yell for help. In fact, I could get on the phone and yell to Washington, which would be a hell of a lot more to the point.

So where was the payoff for Aza-Kra? What was in those papers?

I pushed the button. I said, "This is Dahl. Let me out, will you please?"

The outer door began to slide back. Just in time, I saw Donnelly's head bobbing against it; I grabbed him by the shirt-front and hoisted his limp body out of the way.

I walked across the echoing outer chamber; the outermost door opened for me. I stepped through it and held my breath.

Down the corridor, three guards leaned over their rifles and toppled all in a row, like precision divers. Beyond them a hurrying civilian in the cross-corridor fell heavily and skidded out of sight.

The clacking of typewriters from a nearby office had stopped abruptly. I let out my breath when I couldn't hold it any longer, and listened to the silence.

The General was slumped over his desk, head on his crossed forearms, looking pretty old and tired with his polished bald skull shining under the light. There was a faint silvery scar running across the top of his head, and I wondered whether he had got it in combat as a young man, or whether he had tripped over a rug at an embassy reception.

Across the desk from him a thin man in a gray pin-check suit was jackknifed on the car-

pet, half-supported by a chair-leg, rump higher than his head.

There were two six-foot filing cabinets in the right-hand corner behind the desk. Both were locked; the drawers of the first one were labeled alphabetically, the other was unmarked.

I unhooked Parst's key-chain from his belt. He had as many keys as a janitor or a high-school principal, but not many of them were small enough to fit the filing cabinets. I got the second one unlocked and began going through the drawers. I found what I wanted in the top one—seven fat manila folders labeled "Aza-Kra — Armor," "Aza-Kra — General information," "Aza - Kra — Power sources," "Aza-Kra — Spaceflight" and so on; and one more labeled "Directives and related correspondence."

I hauled them all out, piled them on Parst's desk and pulled up a chair.

I took "Armor" first because it was on top and because the title puzzled me. The folder was full of transcripts of interviews whose subject I had to work out as I went along. It appeared that when captured, Aza-Kra had been wearing a light-weight bullet-proof body armor, made of something that was longitudinally flexible and perpendicularly rigid—in other words, you could

pull it on like a suit of winter underwear, but you couldn't dent it with a sledge hammer.

They had been trying to find out what the stuff was and how it was made for almost two months and as far as I could see they had not made a nickel's worth of progress.

I looked through "Power sources" and "Spaceflight" to see if they were the same, and they were. The odd part was that Aza-Kra's answers didn't sound reluctant or evasive; but he kept running into ideas for which there weren't any words in English and then they would have to start all over again, like Twenty Questions. . . . Is it animal? vegetable? mineral? It was a mess.

I put them all aside except "General information" and "Directives." The first, as I had guessed, was a catch-all for non-technical subjects—where Aza-Kra had come from, what his people were like, his reasons for coming to this planet: all the unimportant questions; or the only questions that had any importance, depending on how you looked at it.

Parst had already given me an accurate summary of it, but it was surprisingly effective in Aza-Kra's words. *You say we want your planet There are many planets, so many you would*

not believe. But if we wanted your planet, and if we could kill as you do, please understand, we are very many. We would fall on your planet like snowflakes. We would not send one man alone.

And later: Most young peoples kill. It is a law of nature, yes, but try to understand, it is not the only law. You have been a young people, but now you are growing older. Now you must learn the other law, not to kill. That is what I have come to teach. Until you learn this, we cannot have you among us.

There was nothing in the folder dated later than a month and a half ago. They had dropped that line of questioning early.

The first thing I saw in the other folder began like this:

You are hereby directed to hold yourself in readiness to destroy the subject under any of the following circumstances, without further specific notification:

1, a: If the subject attempts to escape.

1, b: If the subject kills or injures a human being.

1, c: If the landing, anywhere in the world, of other members of the subject's race is reported and their similarity to the subject established beyond a reasonable doubt. . . .

Seeing it written down like that, in the cold dead-aliveness of black words on white paper, it was easy to forget that the alien was a stomach-turning monstrosity, and to see only that what he had to say was lucid and noble.

But I still hadn't found anything that would persuade me to help him escape. The problem was still there, as insoluble as ever. There was no way of evaluating a word the alien said about himself. He had come alone—perhaps—instead of bringing an invading army with him; but how did we know that one member of his race wasn't as dangerous to us as Perry's battleship to the Japanese? He might be; there was some evidence that he was.

My quarrel with the Defense Department was not that they were mistreating an innocent three-legged missionary, but simply that the problem of Aza-Kra belonged to the world, not to a fragment of the executive branch of the Government of the United States—and certainly not to me.

. . . There was one other way out, I realized. Instead of calling Frisbee in Washington, I could call an arm-long list of senators and representatives. I could call the UN secretariat in New York; I could call the editor of every

major newspaper in this hemisphere and the head of every wire service and broadcasting chain, I could stir up a hornet's nest, even, as the saying goes, if I swung for it.

Wrong again: I couldn't. I opened the "Directives" folder again, looking for what I thought I had seen there in the list of hypothetical circumstances. There it was:

1, f: If any concerted attempt on the part of any person or group to remove the subject from Defense Department custody, or to aid him in any way, is made; or if the subject's existence and presence in Defense Department custody becomes public knowledge.

That sewed it up tight, and it also answered my question about Aza-Kra. Knocking out the personnel of B building would be construed as an attempt to escape or as a concerted attempt by a person or group to remove the subject from Defense Department custody, it didn't matter which. If I broke the story, it would have the same result. They would kill him.

In effect, he had put his life in my hands: and that was why he was so sure that I'd help him.

It might have been that, or what I found just before I left

the office, that decided me. I don't know; I wish I did.

Coming around the desk the other way, I glanced at the thin man on the floor and noticed that there was something under him, half-hidden by his body. It turned out to be two things: a gray fedora and a pint-sized gray-leather briefcase, chained to his wrist.

So I looked under Parst's folded arms, saw the edge of a thick white sheet of paper, and pulled it out.

Under Frisbee's letterhead, it said:

By courier.

Dear General Parst:

Some possibility appears to exist that A. K. is responsible for recent disturbances in your area; please give me your thought on this as soon as possible—the decision can't be long postponed.

In the meantime you will of course consider your command under emergency status, and we count on you to use your initiative to safeguard security at all costs. In a crisis, you will consider Lieut. D. as expendable.

Sincerely yours,

Carlton Frisbee

cf/cf/enc.

"Enc." meant "enclosure"; I pried up Parst's arms again and

found another sheet of stiff paper, folded three times, with a paperclip on it.

It was a First Lieutenant's commission, made out to Robert James Dahl, dated three days before, and with a perfect forgery of my signature at the bottom of it.

If commissions can be forged, so can court-martial records.

I put the commission and the letter in my pocket. I didn't seem to feel any particular emotion, but I noticed that my hands were shaking as I sorted through the "General information" file, picked out a few sheets and stuffed them into my pocket with the other papers. I wasn't confused or in doubt about what to do next. I looked around the room, spotted a metal locker diagonally across from the filing cabinets, and opened it with one of the General's keys.

Inside were two .45 automatics, boxes of ammunition, several loaded clips, and three odd-looking sets of handcuffs, very wide and heavy, each with its key.

I took the handcuffs, the keys, both automatics and all the clips.

In a storeroom at the end of the corridor I found a two-wheeled dolly. I wheeled it all the way around to Section One

and left it outside the center door. Then it struck me that I was still wearing the pinks they had given me when I arrived, and where the hell were my own clothes? I took a chance and went up to my room on the second floor, remembering that I hadn't been back there since morning.

There they were, neatly laid out on the bed. My keys, lighter, change, wallet and so on were on the bedside table. I changed and went back down to Section One.

In the gun-room were two sprawled shapes, one beside the machine-gun that poked its snout through the hemispherical blister, the other under a panel set with three switches and a microphone.

The switches were clearly marked. I opened the first two, walked out and around and laid the three sets of handcuffs on the floor in the middle room. Then I went back to the gun-room, closed the first two doors and opened the third.

Soft thumping sounds came from the loudspeaker over the switch panel; then the rattling of metal, more thumps, and finally a series of rattling clicks.

I opened the first door and went back inside. Through the panel in the middle door I could see Aza-Kra; he had retreated

into the inner room so that all of him was plainly visible. He was squatting on the floor, his legs drawn up. His arms were at full stretch, each wrist manacled to an ankle. He strained his arms outward to show me that the cuffs were tight.

I made one more trip to open the middle door. Then I got the dolly and wheeled it in.

"Thank you," said Aza-Kra. I got a whiff of his "breath"; as Donnelly had intimated, it wasn't pleasant.

Halfway to the airport, at Aza-Kra's request, I held my breath again. Aside from that we didn't speak except when I asked him, as I was loading him from the jeep into a limousine, "How long will they stay unconscious?"

"Not more than twenty hours, I think. I could have given them more, but I did not dare, I do not know your chemistry well enough."

We could go a long way in twenty hours. We would certainly have to.

I hated to go home, it was too obvious and there was a good chance that the hunt would start before any twenty hours were up, but there wasn't any help for it. I had a passport and a visa for England, where I had been planning to go for a pub-

lishers' conference in January, but it hadn't occurred to me to take it along on a quick trip to Washington. And now I had to have the passport.

My first idea had been to head for New York and hand Aza-Kra over to the UN there, but I saw it was no good. Extraterritoriality was just a word, like a lot of other words; we wouldn't be safe until we were out of the country, and on second thought, maybe not then.

It was a little after eight-thirty when I pulled in to the curb down the street from my house. I hadn't eaten since noon, but I wasn't hungry; and it didn't occur to me until later to think about Aza-Kra.

I got the passport and some money without waking my housekeeper. A few blocks away I parked again on a side street. I called the airport, got a reservation on the next eastbound flight, and spent half an hour buying a trunk big enough for Aza-Kra and wrestling him into it.

It struck me at the last minute that perhaps I had been counting too much on that atmosphere-plant of his. His air supply was taken care of, but what about his respiratory waste produced—would he poison himself in that tiny closed space? I asked him, and he said,

"No, it is all right. I will be warm, but I can bear it."

I put the lid down, then opened it again. "I forgot about food," I said. "What do you eat, anyway?"

"At Chillicothe I ate soya bean extract. With added minerals. But I am able to go without food for long periods. Please, do not worry."

All right. I put the lid down again and locked the trunk, but I didn't stop worrying.

He was being too accommodating.

I had expected him to ask me to turn him loose, or take him to wherever his spaceship was. He hadn't brought the subject up; he hadn't even asked me where we were going, or what my plans were.

I thought I knew the answer to that, but it didn't make me any happier. He didn't ask because he already knew—just as he'd known the contents of Parst's office, down to the last document; just as he'd known what I was thinking when I was in the anteroom with Donnelly.

He read minds. And he gassed people through solid metal walls.

What else did he do?

There wasn't time to dispose of the limousine; I simply left it at the airport. If the alarm

went out before we got to the coast, we were sunk anyhow; if not, it wouldn't matter.

Nobody stopped us. I caught the stratojet in New York at 12:20, and five hours later we were in London.

Customs was messy, but there wasn't any other way to handle it. When we were fifth in line, I thought: *Knock them out for about an hour*—and held my breath. Nothing happened. I rapped on the side of the trunk to attract his attention, and did it again. This time it worked: everybody in sight went down like a rag doll.

I stamped my own passport, filled out a declaration form and buried it in a stack of others, put a tag on the trunk, loaded it aboard a handtruck, wheeled it outside and took a cab.

I had learned something in the process, although it certainly wasn't much: either Aza-Kra couldn't, or didn't, eavesdrop on my mind all the time—or else he was simply one step ahead of me.

Later, on the way to the harbor, I saw a newsstand and realized that it was going on three days since I had seen a paper. I had tried to get the New York dailies at the airport, but they'd been sold out—nothing on the stands but a lone copy

of the Staten Island *Advance*. That hadn't struck me as odd at the time—an index of my state of mind—but it did now.

I got out and bought a copy of everything on the stand except the tipsheets—four newspapers, all of them together about equalling the bulk of one *Herald-Star*. I felt frustrated enough to ask the news vendor if he had any papers left over from yesterday or the day before. He gave me a glassy look, made me repeat it, then pulled his face into an indescribable expression, laid a finger beside his nose, and said, " 'Arf a mo.' " He scuttled into a bar a few yards down the street, was gone five minutes, and came back clutching a mare's-nest of soiled and bedraggled papers.

" 'Ere you are, guvner. Three bob for the lot."

I paid him. "Thanks," I said, "very much."

He waved his hand expansively. "Okay, bud," he said. "T'ink nuttin' of it!"

A comedian.

The only Channel boat leaving before late afternoon turned out to be an excursion steamer—round trip, two guineas. The boat wasn't crowded; it was the tag-end of the season, and a rough, windy day. I found a seat without any trouble and finished

sorting out my stack of papers by date and folio.

British newspapers don't customarily report any more of our news than we do of theirs, but this week our supply of catastrophes had been ample enough to make good reading across the Atlantic. I found all three of the Chicago stories—trimmed to less than two inches apiece, but there. I read the first with professional interest, the second skeptically, and the third with alarm.

I remembered the run of odd items I'd read in that Washington hotel room, a long time ago. I remembered Frisbee's letter to Parst: "*Some possibility appears to exist that A. K. is responsible for recent disturbances in your area. . . .*"

I found two of the penitentiary stories, half smothered by stop press, and I added them to the total. I drew an imaginary map of the United States in my head and stuck imaginary pins in it. Red ones, a little cluster: Des Moines, Kansas City, Decatur, St. Louis. Blue ones, a scattering around them: Chicago, Leavenworth, Terre Haute.

Down toward the end of the cabin someone's portable radio was muttering.

A fat youth in a checkered jacket had it. He moved over reluctantly and made room for me

to sit down. The crisp, controlled BBC voice was saying, "... in Commons today, declared that Britain's trade balance is more favorable than at any time during the past fifteen years. In London, ceremonies marking the sixth anniversary of the death..." I let the words slide past me until I heard:

"In the United States, the mysterious epidemic affecting stockyard workers in the central states has spread to New York and New Jersey on the eastern seaboard. The President has requested Congress to provide immediate emergency meat-rationing legislation."

A blurred little woman on the bench opposite leaned forward and said, "Serve 'em right, too! Them with their beefsteak a day."

There were murmurs of approval.

I got up and went back to my own seat. . . . It all fell into one pattern, everything: the man who kicked his wife, the prize-fighters, the policeman, the wardens, the slaughterhouse "epidemic."

It was the *lex talionis*—or the Golden Rule in reverse: *Be done by as you do to others.*

When you injured another living thing, both of you felt the same pain. When you killed, you felt the shock of your victim's

death. You might be only stunned by it, like the slaughterhouse workers, or you might die, like the policeman and the schoolboy murderer.

So-called mental anguish counted too, apparently. That explained the wave of humanitarianism in prisons, at least partially; the rest was religious hysteria and the kind of herd instinct that makes any startling new movement mushroom.

And, of course, it also explained Chillicothe: the horrible blanketing depression that settled anywhere the civilian staff congregated—the feeling of being penned up in a place where something frightful was going to happen—and the thing the two psychiatrists had been arguing about, the pseudo-claustrophobia . . . all that was nothing but the reflection of Aza-Kra's feelings, locked in that cell on an alien planet.

Be done by as you do.

And I was carrying that with me. Des Moines, Kansas City, Decatur, St. Louis, Chicago, Leavenworth, Terre Haute—*New York*. After that, England. We'd been in London less than an hour—but England is only four hundred-odd miles long, from Spittal to Lands End.

I remembered what Aza-Kra had said: *Now you must learn the other law, not to kill.*

Not to kill tripeds.

My body was shaking uncontrollably; my head felt like a balloon stuffed with cotton. I stood up and looked around at the blank faces, the inward-looking eyes, every man, woman and child living in a little world of his own. I had an hysterical impulse to shout at them, *Look at you, you idiots! You've been invaded and half conquered without a shot fired, and you don't know it!*

In the next instant I realized that I was about to burst into laughter. I put my hand over my mouth and half-ran out on deck, giggles leaking through my fingers; I got to the rail and bent myself over it, roaring apoplectic. I was utterly ashamed of myself, but I couldn't stop it; it was like a fit of vomiting.

The cold spray on my face sobered me. I leaned over the rail, looking down at the white water boiling along the hull. It occurred to me that there was one practical test still to be made: a matter of confirmation.

A middle-aged man with rheumy eyes was standing in the cabin doorway, partly blocking it. As I shouldered past him, I deliberately put my foot down on his.

An absolutely blinding pain shot through the toes of my right foot. When my eyes

cleared I saw that the two of us were standing in identical attitudes—weight on one foot, the other knee bent, hand reaching instinctively for the injury.

I had taken him for a "typical Englishman," but he cursed me in a rattling stream of gutter French. I apologized, awkwardly but sincerely—very sincerely.

When we docked at Dunkirk I still hadn't decided what to do.

What I had had in mind up till now was simply to get across France into Switzerland and hold a press conference there, inviting everybody from Tass to the UP. It had to be Switzerland for fairly obvious reasons; the English or the French would clamp a security lid on me before you could say NATO, but the Swiss wouldn't dare—they paid for their neutrality by having to look *both* ways before they cleared their throats.

I could still do that, and let the UN set up a committee to worry about Aza-Kra—but at a conservative estimate it would be ten months before the committee got its foot out of its mouth, and that would be pretty nearly ten months too late.

Or I could simply go to the American consulate in Dunkirk and turn myself in. Within ten hours we would be back in Chilly-cothe, probably, and I'd be free

of the responsibility. I would also be dead.

We got through customs the same way we'd done in London.

And then I had to decide.

The cab driver put his engine in gear and looked at me over his shoulder. "Un hôtel?"

"... Yes," I said. "A cheap hotel. Un hôtel à bon marché."

"Entendu." He jammed down the accelerator an instant before he let out the clutch; we were doing thirty before he shifted into second.

The place he took me to was a villainous third-rate commercial-travelers' hotel, smelling of urine and dirty linen. When the porters were gone I unlocked the trunk and opened it.

We stared at each other.

Moisture was beaded on his blue-gray skin, and there was a smell in the room stronger and ranker than anything that belonged there. His eyes looked duller than they had before; I could barely see the pupils.

"Well?" I said.

"You are half right," he buzzed. "I am doing it, but not for the reason you think."

"All right; you're doing it. Stop it. That comes first. We'll stay here, and I'll watch the papers to make sure you do."

"At the customs, those people will sleep only an hour."

"I don't give a damn. If the

gendarmes come up here, you can put them to sleep. If I have to I'll move you out to the country and we'll live under a haystack. But no matter what happens we're not going a mile farther into Europe until I know you've quit. If you don't like that, you've got two choices. Either you knock me out, and see how much good it does you, or I'll take that air-machine off your head."

He buzzed inarticulately for a moment. Then, "I have to say no. It is impossible. I could stop for a time, or pretend to you that I stop, but that would solve nothing. It will be—it will do the greatest harm if I stop; you don't understand. It is necessary to continue."

I said, "That's your answer?"

"Yes. If you will let me explain—"

I stepped toward him. I didn't hold my breath, but I think half-consciously I expected him to gas me. He didn't. He didn't move; he just waited.

Seen at close range, the flesh of his head seemed to be continuous with the black substance of the cone; instead of any sharp dividing line, there was a thin area that was neither one nor the other.

I put one hand over the fleshy bulb, and felt his eyes retract and close against my palm. The

sensation was indescribably unpleasant, but I kept my hand there, put the other one against the far side of the cone—pulled and pushed simultaneously, as hard as I could.

The top of my head came off.

I was leaning against the top of the open trunk, dizzy and nauseated. The pain was like a white-hot wire drawn tight around my skull just above the eyes. I couldn't see; I couldn't think.

And it didn't stop; it went on and on. . . . I pushed myself away from the trunk and let my legs fold under me. I sat on the floor with my head in my hands, pushing my fingers against the pain.

Gradually it ebbed. I heard Aza-Kra's voice buzzing very quietly, not in English but in a rhythm of tone and phrasing that seemed almost directly comprehensible; if there were a language designed to be spoken by bass viols, it might sound like that.

I got up and looked at him. Shining beads of blue liquid stood out all along the base of the cone, but the seam had not broken.

I hadn't realized that it would be so difficult, that it would be so painful. I felt the weight of the two automatics in my pockets, and I pulled one out, the

metal cold and heavy in my palm . . . but I knew suddenly that I couldn't do that either.

I didn't know where his brain was, or his heart. I didn't know whether I could kill him with one shot.

I sat down on the bed, staring at him. "You knew that would happen, didn't you," I said. "You must think I'm a prize sucker."

He said nothing. His eyes were half-closed, and a thin whey-colored fluid was drooling out of the two mouths I could see. Aza-Kra was being sick.

I felt an answering surge of nausea. Then the flow stopped, and a second later the nausea stopped too. I felt angry, and frustrated, and frightened.

After a moment I got up off the bed and started for the door.

"Please," said Aza-Kra. "Will you be gone long?"

"I don't know," I said. "Does it matter?"

"If you will be gone long," he said, "I would ask that you loosen the handcuffs for a short period before you go."

I stared at him, suddenly hating him with a violence that shook me.

"No," I said, and reached for the door-handle.

My body knotted itself together like a fist. My legs gave way under me, and I missed the

door-handle going down; I hit the floor hard.

There was no sensation in my hands or feet. The muscles of my shoulders, arms, thighs and calves were one huge, heavy pain. And I couldn't move.

I looked at Aza-Kra's wrists, shackled to his drawn-up ankles. He had been like that for something like fourteen hours. He had cramps.

"I am sorry," said Aza-Kra. "I did not want to do that to you, but there was no other way."

I thought dazedly, *No other way to do what?*

"To make you wait. To listen. To let me explain."

I said, "I don't get it." Anger flared again, then faded under something more intense and painful. The closest English word for it is "humility"; some other language may come nearer, but I doubt it; it isn't an emotion that we like to talk about. I felt bewildered, and ashamed, and very small, all at once, and there was another component, harder to name. A . . . threshold feeling.

I tried again. "I felt the other pain, before, but not this. Is that because—"

"Yes. There must be the intention to injure, or cause pain. I will tell you why. I have to go

back very far. When an animal becomes more developed—many cells, instead of one—always the same things happen. I am the first man of my kind who ever saw a man of your kind. But we both have eyes. We both have ears." The feathery spines on his neck stiffened and relaxed. "Also there is another sense that always comes. But always it goes only a little way and then stops.

"When you are a young animal, fighting with the others to live, it is useful to have a sense which feels the thoughts of the enemy. Just as it is useful to have a sense which sees the shape of his body. But this sense cannot come all at once, it must grow by a little and a little, as when a surface that can tell the light from the dark becomes a true eye.

"But the easiest thoughts to feel are the pain thoughts, they are much stronger than any others. And when the sense is still weak—it is a part of the brain, not an organ by itself—when it is weak, only the strongest stimulus can make it work. This stimulus is hatred, or anger, or the wish to kill.

"So that just when the sense is enough developed that it could begin to be useful, it always disappears. It is not gone, it is pushed under. A very long

time ago, one race discovered this sense and learned how it could be brought back. It is done by a class of organic chemicals. You have not the word. For each race a different member of the class, but always it can be done. The chemical is a catalyst, it is not used up. The change it makes is in the cells of all the body—it is permanent, it passes also to the children.

"You understand, when a race is older, to kill is not useful. With the change, true civilization begins. The first race to find this knowledge gave it to others, and those to others, and now all have it. All who are able to leave their planets. We give it to you, now, because you are ready. When you are older there will be others who are ready. You will give it to them."

While I had been listening, the pain in my arms and legs had slowly been getting harder and harder to take. I reminded myself that Aza-Kra had borne it, probably, at least ten hours longer than I had; but that didn't make it much easier. I tried to keep my mind off it but that wasn't possible; the band of pain around my head was still there, too, a faint throbbing. And both were consequences of things I had done to Aza-Kra. I was suffering with him, measure for measure.

Justice: Surely that was a good thing? Automatic instant retribution, mathematically accurate: an eye for an eye.

I said, "That was what you were doing when they caught you, then—finding out which chemical we reacted to?"

"Yes. I did not finish until after they had brought me to Chillicothe. Then it was much more difficult. If not for my accident, all would have gone much more quickly."

"The walls?"

"Yes. As you have guessed, my air machine will also make other substances and expel them with great force. Also, when necessary, it will place these substances in a—state of matter, you have not the word—so that they pass through solid objects. But this takes much power. While in Chillicothe my range was very small. Later, when I can be in the open, it will be much greater."

He caught what I was thinking before I had time to speak. He said, "Yes. You will agree. When you understand."

It was the same thing he had told me at Chillicothe, almost to the word.

I said, "You keep talking about this thing as a gift but I notice you didn't ask us if we wanted it. What kind of a gift is that?"

"You are not serious. You know what happened when I was captured."

After a moment he added, "I think if it had been possible, if we could have asked each man and woman on the planet to say yes or no, explaining everything, showing that there was no trick, that most would have said yes. For people the change is good. But for governments it is not good."

I said, "I'd like to believe you. It would be very pleasant to believe you. But nothing you can say changes the fact that this thing, this gift of yours could be a weapon. To soften us up before you move in. If you were an advance agent for an invasion fleet, this is what you'd be doing."

"You are thinking with habits," he said. "Try to think with logic. Imagine that your race is very old, with much knowledge. You have ships that cross between the stars. Now you discover this young race, these Earthmen, who only begin to learn to leave their own planet. You decide to conquer them. Why? What is your reason?"

"How do I know? It could be anything. It might be something I couldn't even imagine. For all I know you want to eat us."

His throat-spines quivered. He

said slowly, "You are partly serious. You really think . . . I am sorry that you did not read the studies of the physiologists. If you had, you would know. My digestion is only for vegetable food. You cannot understand, but—with us, to eat meat is like with you, to eat excretions."

I said, "All right, maybe we have something else you want. Natural resources that you've used up. Some substance, maybe some rare element."

"This is still habit thinking. Have you forgotten my air machine?"

"—Or maybe you just want the planet itself. With us cleared off it, to make room for you."

"Have you never looked at the sky at night?"

I said, "All *right*. But this quiz was your idea, not mine. I *admit* that I don't know enough even to make a sensible guess at your motives. And that's the reason why I can't trust you."

He was silent a moment. Then: "Remember that the substance which makes the change is a catalyst. Also it is a very fine powder. The particles are of only a few molecules each. The winds carry it. It is swallowed and breathed in and absorbed by the skin. It is breathed out and excreted. The wind takes it again. Water carries it. It is carried by insects and by birds and

animals, and by men, in their bodies and in their clothing.

"This you can understand and know that it is true. If I die another could come and finish what I have begun, but even this is not necessary. The amount of the catalyst I have already released is more than enough. It will travel slowly, but nothing can stop it. If I die now, this instant, still in a year the catalyst will reach every part of the planet."

After a long time I said, "Then what did you mean by saying that a great harm would be done, if you stopped now?"

"I meant this. Until now, only your Western nations have the catalyst. In a few days their time of crisis will come, beginning with the United States. And the nations of the East will attack."

IV

I found that I could move, inchmeal, if I sweated hard enough at it. It took me what seemed like half an hour to get my hand into my pocket, paw all the stuff out onto the floor, and get the key-ring hooked over one finger. Then I had to crawl about ten feet to Aza-Kra, and when I got there my fingers simply wouldn't hold the keys firmly enough.

I picked them up in my teeth and got two of the wristcuffs unlocked. That was the best I could do; the other one was behind him, inside the trunk, and neither of us had strength enough to pull him out where I could get at it.

It was comical. My muscles weren't cramped, but my nervous system was getting messages that said they were—so, to all intents and purposes, it was true. I had no control over it; the human body is about as skeptical as a God-smitten man at a revival meeting. If mine had thought it was burning, I would have developed simon-pure blisters.

Then the pins-and-needles started, as Aza-Kra began to flex his arms and legs to get the stiffness out of them. Between us, after awhile, we got him out of the trunk and unlocked the third cuff. In a few minutes I had enough freedom of movement to begin massaging his cramped muscles; but it was three-quarters of an hour before either of us could stand.

We caught the mid-afternoon plane to Paris, with Aza-Kra in the trunk again. I checked into a hotel, left him there, and went shopping: I bought a hideous black dress with imitation-onyx trimming, a black coat with a

cape, a feather muff, a tall black hat and the heaviest mourning veil I could find. At a theatrical costumer's near the Place de l'Opera I got a reasonably life-like old-woman mask and a heavy wig.

When he was dressed up, the effect was startling. The tall hat covered the cone, the muff covered two of his hands. There was nothing to be done about the feet, but the skirt hung almost to the ground, and I thought he would pass, with luck.

We got a cab and headed for the American consulate, but halfway there I remembered about the photographs. We stopped off at an amusement arcade and I got my picture taken in a coin-operated machine. Aza-Kra was another problem—that mask wouldn't fool anybody without the veil—but I spotted a poorly-dressed old woman and with some difficulty managed to make her understand that I was a crazy American who would pay her five hundred francs to pose for her picture. We struck a bargain at a thousand.

As soon as we got into the consulate waiting room, Aza-Kra gassed everybody in the building. I locked the street door and searched the offices until I found a man with a little pile of blank passport books on the desk

in front of him. He had been filling one in on a machine like a typewriter except that it had a movable plane-surface platen instead of a cylinder.

I moved him out of the way and made out two passports: one for myself, as Arthur James LeRoux; one for Aza-Kra, as Mrs. Adrienne LeRoux. I pasted on the photographs and fed them into the machine that pressed the words, "*Photograph attached U. S. Consulate Paris, France*" into the paper, and then into the one that impressed the consular seal.

I signed them, and filled in the blanks on the inside covers, in the taxi on the way to the Israeli consulate. The afternoon was running out, and we had a lot to do.

We went to six foreign consulates, gassed the occupants, and got a visa stamp in each one. I had the devil's own time filling them out; I had to copy the scribbles I found in legitimate passports at each place and hope for the best. The Israeli one was surprisingly simple, but the Japanese was a horror.

We had dinner in our hotel room—steak for me, water and soy-bean paste, bought at a health-food store, for Aza-Kra. Just before we left for Le Bourget, I sent a cable to Eli Freeman: *Big story will have to wait*

spread this now all stockyard so-called epidemic and similar phenomena due one cause step on somebody's toe to see what I mean.

Shortly after seven o'clock we were aboard a flight bound for the Middle East.

And that was the fourth day, during which a number of things happened that I didn't have time to add to my list until later.

Commercial and amateur fishermen along the Atlantic seaboard, from Delaware Bay as far north as Portland, suffered violent attacks whose symptoms resembled those of asthma. Some—who had been using rods or poles rather than nets—complained also of sharp pains in the jaws and hard palate. Three deaths were reported.

The "epidemic" now covered roughly half of the continental United States. All livestock shipments from the West had been cancelled, stockyards in the affected area were full to bursting. The President had declared a national emergency.

Lobster had disappeared completely from east-coast menus.

One Robert James Dahl, described as the owner and publisher of a Middle Western newspaper, was being sought by the Defense Department and the FBI in connection with the

disappearance of certain classified documents.

The next day, the fifth, was Saturday. At two in the morning on a Sabbath, Tel Aviv seemed as dead as Angkor. We had four hours there, between planes; we could have spent them in the airport waiting room, but I was wakeful and I wanted to talk to Aza-Kra. There was one ancient taxi at the airport; I had the driver take us into the town and leave us there, down in the harbor section, until plane time.

We sat on a bench behind the sea wall and watched the moonlight on the Mediterranean. Parallel banks of faintly-silvered clouds arched over us to northward; the air was fresh and cool.

After awhile I said, "You know that I'm only playing this your way for one reason. As far as the rest of it goes, the more I think about it the less I like it."

"Why?"

"A dozen reasons. The biological angle, for one. I don't like violence, I don't like war, but it doesn't matter what I like. They're biologically necessary, they eliminate the unfit."

"Do you say that only the unfit are killed in wars?"

"That isn't what I mean. In modern war the contest isn't be-

tween individuals, it's between whole populations. Nations, and groups of nations. It's a cruel, senseless, wasteful business, and when you're in the middle of it it's hard to see any good at all in it, but it works—the survivors *survive*, and that's the only test there is.” ~

“Our biologists do not take this view.” He added, “Neither do yours.”

I said, “How's that?”

“Your biologists agree with ours that war is not biological. It is social. When so many are killed, no stock improves. All suffer. It is as you yourself say, the contest is between nations. But their wars kill men.”

I said, “All right, I concede that one. But we're not the only kind of animal on this planet, and we didn't get to be the dominant species without fighting. What are we supposed to do if we run into a hungry lion—argue with him?”

“In a few weeks there will be no more lions.”

I stared at him. “This affects lions, too? Tigers, elephants, everything?”

“Everything of sufficient brain. Roughly, everything above the level of your insects.”

“But I understood you to say that the catalyst—that it took a different catalyst for each species.”

“No. All those with spines and warm blood have the same ancestors. Your snakes may perhaps need a different catalyst, and I believe you have some primitive sea creatures which kill, but they are not important.”

I said, “My God.” I thought of lions, wolves, coyotes, housecats, lying dead beside their prey. Eagles, hawks and owls tumbling out of the sky. Ferrets, stoats, weasels . . .

The world a big garden, for protected children.

My fists clenched. “But this is a million times worse than I had any idea. It's insane. You're upsetting the whole natural balance, you're knocking it crossways. Just for a start, what the hell are we going to do about rats and mice? That's—” I choked on my tongue. There were too many images in my mind to put any of them into words. Rats like a tidal wave, filling a street from wall to wall. Deer swarming out of the forests. The sky blackening with crows, sparrows, jays . . .

“It will be difficult for some years,” Aza-Kra said. “Perhaps even as difficult as you now think. But you say that to fight for survival is good. Is it not better to fight against other species than among yourselves?”

“Fight!” I said. “What have

you left us to fight with? How many rats can a man kill before he drops dead from shock?"

"It is possible to kill without causing pain or shock. . . . You would have thought of this, although it is a new idea for you. Even your killing of animals for food can continue. We do not ask you to become as old as we are in a day. Only to put behind you your cruelty which has no purpose."

He had answered me, as always; and as always, the answer was two-edged. It was possible to kill painlessly, yes. And the only weapon Aza-Kra had brought to Earth, apparently, was an anaesthetic gas. . . .

We landed at Srinagar, in the Vale of Kashmir, at high noon: a sea of white light under a molten-metal sky.

Crossing the field, I saw a group of white-turbaned figures standing at the gate. I squinted at them through the glare; heat-waves made them jump and waver, but in a moment I was sure. They were bush-bearded Sikh policemen, and there were eight of them.

I pressed Aza-Kra's arm sharply and held my breath.

A moment later we picked our way through the sprawled line of passengers to the huddle of bodies at the gate. The passport

examiner, a slender Hindu, lay a yard from the Sikhs. I plucked a sheet of paper out of his hand.

Sure enough, it was a list of the serial numbers of the passports we had stolen from the Paris consulate.

Bad luck. It was only sixty-three in Paris now, and on a Saturday morning at that; we should have had at least six hours more. But something could have gone wrong at any one of the seven consulates—an after-hours appointment, or a worried wife, say. After that the whole thing would have unraveled.

"How much did you give them this time?" I asked.

"As before. Twenty hours."

"All right, good. Let's go."

He had overshot his range a little: all four of the hack-drivers waiting outside the airport building were snoring over their wheels. I dumped the skinniest one in the back seat with Aza-Kra and took over.

Not for the first time, it occurred to me that without me or somebody just like me Aza-Kra would be helpless. It wasn't just a matter of getting out of Chilli-cothe; he couldn't drive a car or fly a plane, he couldn't pass for human by himself; he couldn't speak without giving himself away. Free, with no broken bones, he could probably escape

recapture indefinitely; but if he wanted to go anywhere he would have to walk.

And not for the first time, I tried to see into a history book that hadn't been written yet. My name was there, that much was certain, providing there was going to be any history to write. But was it a name like Blondel . . . or did it sound more like Vidkun Quisling?

We had to go south; there was nothing in any other direction but the highest mountains in the world. We didn't have Pakistan visas, so Lahore and Amritsar, the obvious first choices, were out. The best we could do was Chamba, about two hundred rail miles southeast on the Srinagar-New Delhi line. It wasn't on the principal air routes, but we could get a plane there to Saharanpur, which was.

There was an express leaving in half an hour, and we took it. I bought an English-language newspaper at the station and read it backwards and forwards for four hours; Aza-Kra spent the time apparently asleep, with his cone, hidden by the black hat, tilted out the window.

The "epidemic" had spread to five Western states, plus Quebec, Ontario and Manitoba, and parts of Mexico and Cuba . . . plus England and France, I knew, but

there was nothing about that in my Indian paper; too early.

In Chamba I bought the most powerful battery-operated portable radio I could find; I wished I had thought of it sooner. I checked with the airport: there was a flight leaving Saharanpur for Port Blair at eight o'clock.

Port Blair, in the Andamans, is Indian territory; we wouldn't need to show our passports. What we were going to do after that was another question.

I could have raided another set of consulates, but I knew it would be asking for trouble. Once was bad enough; twice, and when we tried it a third time—as we would have to, unless I found some other answer—I was willing to bet we would find them laying for us, with gas masks and riot guns.

Somehow, in the few hours we were to spend at Port Blair, I had to get those serial numbers altered by an expert.

We had been walking the black, narrow dockside streets for two hours when Aza-Kra suddenly stopped.

"Something?"

"Wait," he said. ". . . Yes. This is the man you are looking for. He is a professional forger. His name is George Wheelwright. He can do it, but I do not know whether he will. He is

a very timid and suspicious man."

"All right. In here?"

"Yes."

We went up a narrow unlighted stairway, choked with a kitchen-midden of smells, curry predominating. At the second-floor landing Aza-Kra pointed to a door. I knocked.

Scufflings behind the door. A low voice: "Who's that?"

"A friend. Let us in, Wheelwright."

The door cracked open and yellow light spilled out; I saw the outline of a head and the faint gleam of a bulbous eye. "What d'yer want?"

"Want you to do a job for me, Wheelwright. Don't keep us talking here in the hall."

The door opened wider and I squeezed through into a cramped, untidy box of a kitchen. A faded cloth covered the doorway to the next room.

Wheelwright glanced at Aza-Kra and then stared hard at me; he was a little chicken-breasted wisp of a man, dressed in dungarees and a striped polo shirt. "Who sent yer?"

"You wouldn't know the name. A friend of mine in Calcutta." I took out the passports. "Can you fix these?"

He looked at them carefully, taking his time. "What's wrong with 'em?"

"Nothing but the serial numbers."

"What's wrong with *them*?"

"They're on a list."

He laughed, a short, meaningless bark.

I said, "Well?"

"Who'd yer say yer friend in Calcutta was?"

"I haven't got any friend in Calcutta. Never mind how I knew about you. Will you do the job or won't you?"

He handed the passports back and moved toward the door. "Mister, I haven't got the time to fool with yer. Perhaps yer having me on, or perhaps yer've made an honest mistake. There's another Wheelwright over on the north side of town. You try him." He opened the door. "Good night, both."

I pushed it shut again and reached for him, but he was a yard away in one jump, like a rabbit. He stood beside the table, arms hanging, and stared at me with a vague smile.

I said, "I haven't got time to play games, either. I'll pay you five hundred American dollars to alter these passports—" I tossed them onto the table—"or else I'll beat the living tar out of you." I took a step toward him.

I never saw a man move faster: he had the drawer open and the gun out and aimed before I finished that step. But

the muzzle trembled slightly. "No nearer," he said hoarsely.

I thought, *Five minutes*, and held my breath.

When he slumped, I picked up the revolver. Then I lifted him—he weighed about ninety pounds—propped him in a chair behind the table, and waited.

In a few minutes he raised his head and goggled at me dazedly. "How'd yer do that?" he whispered.

I put the money on the table beside the passports. "Start," I said.

He stared at it, then at me. His thin lips tightened. "Go ter blazes," he said.

I stepped around the table and cuffed him backhand. I felt the blow on my own face, hard and stinging, but I did it again. I kept it up. It wasn't pleasant; I was feeling not only the blows themselves, but Wheelwright's emotional responses, the shame and wretchedness and anger, and the queasy writhing fear: Wheelwright couldn't bear pain.

At that, he beat me. When I stopped, sickened and dizzy, and said as roughly as I could, "Had enough, Wheelwright?" he answered, "Not if yer was ter kill me, yer bloody barstid."

His voice trembled, and his face was streaked with tears, but he meant it. He thought I was a government agent, trying

to bully him into signing his own prison sentence, and rather than let me do it he would take any amount of punishment; prison was the one thing he feared more than physical pain.

I looked at Aza-Kra. His neck-spines were erect and quivering; I could see the tips of them at the edges of the veil. Then inspiration hit me.

I pulled him forward where the little man could see him, and lifted the veil. The feathery spines stood out clearly on either side of the corpse-white mask.

"I won't touch you again," I said. "But look at this. Can you see?"

His eyes widened; he scrubbed them with the palms of his hands and looked again.

"And this," I said. I pulled at Aza-Kra's forearm and the clawed blue-gray hand came out of the muff.

Wheelwright's eyes bulged. He flattened himself against the back of the chair.

"Now," I said, "six hundred dollars—or I'll take this mask off and show you what's behind it."

He clenched his eyes shut. His face had gone yellowish-pale; his nostrils were white.

"Get it out of here," he said faintly.

He didn't move until Aza-Kra

had disappeared behind the curtain into the other room. Then, without a word, he poured and drank half a tumblerful of whiskey, switched on a gooseneck lamp, produced bottles, pens and brushes from the table drawer, and went to work. He bleached away the first and last digits of both serial numbers, then painted over the areas with a thin wash of color that matched the blue tint of the paper. With a jeweler's loupe in his eye, he restored the obliterated tiny letters of the background design; finally, still using the loupe, he drew the new digits in black. From first to last, it took him thirty minutes; and his hands didn't begin to tremble until he was done.

V

The sixth day was two days—because we left Otaru at 3:30 p.m. Sunday and arrived at Honolulu at 11:30 p.m. Saturday. We had lost four and a half hours in traversing sixty-two degrees of longitude—but we'd also gained a day by crossing the International Date Line from west to east.

On the sixth day, then, which was two days, the following things happened and were duly reported:

Be Done By As Ye Do was

the title of some thousands of sermons and, by count, more than seven hundred front-page newspaper editorials from Newfoundland to Oaxaca. My cable to Freeman had come a little late; the *Herald-Star's* announcement was lost in the ruck.

Following this, a wave of millennial enthusiasm swept the continent; Christians and Jews everywhere feasted, fasted, prayed and in other ways celebrated the imminent Second (or First) Coming of Christ. Evangelistic and fundamentalist sects garnered souls by the million.

Members of the Apostolic Overcoming Holy Church of God, the Pentecostal Fire Baptized Holiness Church and numerous other groups gave away most or all of their worldly possessions. Others were more practical. The Seventh Day Adventists, who are vegetarians, pooled capital and began an enormous expansion of their meatless-food factories, dairies and other enterprises.

Delegates to a World Synod of Christian Churches began arriving at a tent city near Smith Center, Kansas, late Saturday night. Trouble developed almost immediately between the Brethren Church of God (Reformed Dunkers) and the Two-Seed - in - the - Spirit Predes-

tinarian Baptists—later spreading to a schism which led to the establishment of two rump synods, one at Lebanon and the other at Athol.

Five hundred Doukhobors stripped themselves mother-naked, burned their homes, and marched on Vancouver.

Roman Catholics in most places celebrated the Feast of the Transfiguration as usual, awaiting advice from Rome.

Riots broke out in Chicago, Detroit, New Orleans, Philadelphia and New York. In each case the original disturbances were brief, but were followed by protracted vandalism and looting which local police, state police, and even National Guard units were unable to check. By midnight Sunday property damage was estimated at more than twenty million dollars. The casualty list was fantastically high. So was the proportion of police-and-National-Guard casualties—exactly fifty per cent of the total. . . .

In the British Isles, Western Europe and Scandinavia, the early symptoms of the Western hemisphere's disaster were beginning to appear: the stricken slaughterers and fishermen, the unease in prisons, the freaks of violence.

An unprecedented number of political refugees turned up on

the East-German side of the Burnt Corridor early Saturday morning.

Late the same day, a clash between Sikh and Moslem guards on the India-Pakistan border near Sialkot resulted in the annihilation of both parties.

And on Sunday it hit the fighting in Indo-China.

Allied and Communist units, engaging at sixty points along the eight-hundred-mile front, fell back with the heaviest casualties of the war.

Red bombers launched a successful daylight attack on Luangprabang: successful, that is, except that nineteen out of twenty planes crashed outside the city or fell into the Nam Ou.

Forty Allied bombers took off on sorties to Yen-bay, Hanoi and Nam-dinh. None returned.

Nobody knew it yet, but the war was over.

Still other things happened but were not recorded by the press:

A man in Arizona, a horse gelder by profession, gave up his business and moved out of the county, alleging ill health.

So did a dentist in Tacoma, and another in Galveston.

In Breslau an official of the People's Police resigned his position with the same excuse; and one in Buda; and one in Pest.

A conservative Tajik tribesman of Indarab, discovering that his new wife had been unfaithful, attempted to deal with her in the traditional manner, but desisted when a critical observer would have said he had hardly begun; nor did this act of compassion bring him any relief.

And outside the town of Otaru, just two hundred and fifty miles across the Sea of Japan from the eastern shore of the Russian Socialist Federated Soviet Republic, Aza-Kra used his anaesthetic gas again—on me.

I had been bone-tired when we left Port Blair shortly before midnight, but I hadn't slept all the long dark droning way to Manila; or from there to Tokyo, with the sun rising half an hour after we cleared the Philippines and slowly turning the globe underneath us to a white disk of fire; or from Tokyo north again to Otaru, bleak and windy and smelling of brine.

In all that time, I hadn't been able to forget Wheelwright except for half an hour toward the end, when I picked up an English - language broadcast from Tokyo and heard the news from the States.

The first time you burn yourself playing with matches, the chances are that if the blisters

aren't too bad, you get over it fast enough; you forget about it. But the second time, it's likely to sink in.

Wheelwright was my second time; Wheelwright finished me.

It's more than painful, it's more than frightening, to cause another living creature pain and feel what he feels. It tears you apart. It makes you the victor and the victim, and neither half of that is bearable.

It makes you love what you destroy—as you love yourself—and it makes you hate yourself as your victim hates you.

That isn't all. I had felt Wheelwright's self-loathing as his body cringed and the tears spilled out of his eyes, the helpless gut-twisting shame that was as bad as the fear; and that burden was on me too.

Wheelwright was talented. That was his own achievement; he had found it in himself and developed it and trained himself to use it. Wheelwright had courage. That was his own. But who had made Wheelwright afraid? And who had taught him that the world was his enemy?

You, and I, and every other human being on the planet, and all our two-legged ancestors before us. Because we had settled for too little. Because not more than a handful of us, out of all

the crawling billions, had ever had the will to break the chain of blows, from father to daughter to son, generation after generation.

So there was Wheelwright; that was what we had made out of man: the artistry and the courage compressed to a needle-thin, needle-hard core inside him, and that only because we hadn't been able to destroy it altogether; the rest of him self-hatred, and suspicion, and resentment, and fear.

But after breakfast in Tokyo, it began to seem a little more likely that some kind of a case could be made for the continued existence of the human race. And after that it was natural to think about lions, and about the rioting that was going on in America.

For all his moral nicety, Aza-Kra had no trouble in justifying the painful extinction of carnivores. From his point of view, they were better off dead. It was regrettable, of course, but . . .

But, *sub specie aeternitatis*, was a man much different from a lion?

It was a commonplace that no other animal killed on so grand a scale as man. The problem had never come up before: could we live without killing?

I was standing with Aza-Kra at the top of a little hill that

overlooked the coast road and the bay. The bus that had brought us there was dwindling, a white speck in a cloud of dust, down the highway toward Cape Kamui.

Aza-Kra sat on a stone, his third leg grotesquely bulging the skirt of his coat. His head bent forward, as if the old woman he was pretending to be had fallen asleep, chin on massive chest; the conical hat pointed out to sea.

I said, "This is the time of crisis you were talking about, for America."

"Yes. It begins now."

"When does it end? Let's talk about this a little more. This justice. Crimes of violence—all right. They punish themselves, and before long they'll prevent themselves, automatically. What about crimes of property? A man steals my wallet and runs. Or he smashes a window and takes what he wants. Who's going to stop him?"

He didn't answer for a moment; when he did the words came slowly and the pronunciation was bad, as if he were too weary to attend to it. "The wallet can be chained to your clothing. The window can be made of glass that does not break."

I said impatiently, "You know that's not what I mean. I'm talking about the problem as it

affects everybody. We solve it by policemen and courts and prisons. What do we do instead?"

"I am sorry that I did not understand you. Give me a moment. . . ."

I waited.

"In your Middle Ages, when a man was insane, what did you do?"

I thought of Bedlam, and of creatures with matted hair chained to rooftops.

He didn't wait for me to speak. "Yes. And now, you are more wise?"

"A little."

"Yes. And in the beginning of your Industrial Revolution, when a factory stopped and men had no work, what was done?"

"They starved."

"And now?"

"There are relief organizations. We try to keep them alive until they can get work."

"If a man steals what he does not need," Aza-Kra said; "is he not sick? If a man steals what he must have to live, can you blame him?"

Socrates, in an onyx-trimmed dress, three-legged on a stone.

Finally I said, "It's easy enough to make us look foolish, but we have made some progress in the last two thousand years. Now you want us to go the rest of the way overnight. It's im-

possible; we haven't got time enough."

"You will have more time now." His voice was very faint. "Killing wastes much time. . . . Forgive me, now I must sleep."

His head dropped even farther forward. I watched for awhile to see if he would topple over, but of course he was too solidly based. A tripod. I sat down beside him, feeling my own fatigue drag at my body, envying him his rest; but I couldn't sleep.

There was really no point in arguing with him, I told myself; he was too good for me. I was a savage splitting logic with a missionary. He knew more than I did; probably he was more intelligent. And the central question, the only one that mattered, couldn't be answered the way I was going at it.

Aza-Kra himself was the key, not the doctrine of non-violence, not the psychology of crime.

If he was telling the truth about himself and the civilization he came from, I had nothing to worry about.

If he wasn't, then I should have left him in Chillicothe or killed him in Paris; and if I could kill him now,—that was what I should do.

And I didn't know. After all this time, I still didn't know.

I saw the bus come back down the road and disappear towards

Otaru. After a long time, I saw it heading out again. When it came back from the cape the second time, I woke Aza-Kra and we slogged down the steep path to the roadside. I waved as the bus came nearer; it slowed and rattled to a halt a few yards beyond us.

Passengers' heads popped out of the windows to watch us as we walked toward the door. Most of them were Japanese, but I saw one Caucasian, leaning with both arms out the window. I saw his features clearly, narrow pale nose and lips, blue eyes behind rimless glasses; sunlight glinting on sparse yellow hair. And then I saw the flat dusty road coming up to meet me.

I was lying face-up on a hard sandy slope; when I opened my eyes I saw the sky and a few blades of tough, dry grass. The first thought that came into my head was, *Now I know. Now I've had it.*

I sat up. And a buzzing voice said, "Hold your breath!"

Turning, I saw a body sprawled on the slope just below me. It was the yellow-haired man. Beyond him squatted the gray form of Aza-Kra.

"All right," he said.

I let my breath out. "What—?"

He showed me a brown metal

ovoid, cross-hatched with fragmentation grooves. A grenade.

"He was about to arm it. There was no time to warn you. I knew you would wish to see for yourself."

I looked around dazedly. Thirty feet above, the slope ended in a clean-cut line against the sky; beyond it was a short, narrow white stripe that I recognized as the top of the bus, still parked at the side of the road.

"We have ten minutes more before the others awaken."

I went through the man's pockets. I found a handful of change, a wallet with nothing in it but a few yen notes, and a folded slip of glossy white paper. That was all.

I unfolded the paper, but I knew what it was even before I saw the small teleprinted photograph on its inner side. It was a copy of my passport picture—the one on the genuine document, not the bogus one I had made in Paris.

On the way back, my hands began shaking. It got so bad that I had to put them between my thighs and squeeze hard; and then the shaking spread to my legs and arms and jaw. My forehead was cold and there was a football-sized ache in my belly, expanding to a white pain every time we hit a bump. The whole

bus seemed to be tilting ponderously over to the right, farther and farther but never falling down.

Later, when I had had a cup of coffee and two cigarettes in the terminal lunch room, I got one of the most powerful irrational impulses I've ever known: I wanted to take the next bus back to that spot on the coast road, walk down the slope to where the yellow-haired man was, and kick his skull to flinders.

If we were lucky, the yellow-haired man might have been the only one in Otaru who knew we were here. The only way to find out was to go on to the airport and take a chance; either way, we had to get out of Japan. But it didn't end there. Even if they didn't know where we were now, they knew all the stops on our itinerary; they knew which visas we had. Maybe Aza-Kra would be able to gas the next one before he killed us, and then again maybe not.

I thought about Frisbee and Parst and the President—damning them all impartially—and my anger grew. By now, I realized suddenly, they must have understood that we were responsible for what was happening. They would have been energetically apportioning the blame for the last few days;

probably Parst had already been court-martialed.

Once that was settled, there would be two things they could do next. They could publish the truth, admit their own responsibility, and warn the world. Or they could destroy all the evidence and keep silent. If the world went to hell in a bucket, at least they wouldn't be blamed for it. . . . Providing I was dead. Not much choice.

After another minute I got up and Aza-Kra followed me out to a taxi. We stopped at the nearest telegraph office and I sent a cable to Frisbee in Washington: HAVE SENT FULL ACCOUNT CHILLICOTHE TO TRUSTWORTHY PERSON WITH INSTRUCTIONS PUBLISH EVENT MY DEATH OR DISAPPEARANCE. CALL OFF YOUR DOGS.

It was childish, but apparently it worked. Not only did we have no trouble at the Otaru airport—the yellow-haired man, as I'd hoped, must have been working alone—but nobody bothered us at Honolulu or Asuncion.

Just the same, the mood of depression and nervousness that settled on me that day didn't lift; it grew steadily worse. Fourteen hours' sleep in Asuncion didn't mend it; Monday's reports of panics and bank fail-

ures in North America intensified it, but that was incidental.

And when I slept, I had nightmares: dreams of stifling-dark jungles, full of things with teeth.

We spent twenty-four hours in Asuncion, while Aza-Kra pumped out enough catalyst to blanket South America's seven million square miles—a territory almost as big as the sprawling monster of Soviet Eurasia.

After that we flew to Cape-town—and that was it. We were finished.

We had spiraled around the globe, from the United States to England, to France, to Israel, to India, to Japan, to Paraguay, to the Union of South Africa, trailing an expanding invisible cloud behind us. Now the trade winds were carrying it eastward from the Atlantic, south from the Mediterranean, north from the Indian Ocean, west from the Atlantic.

Frigate birds and locusts, men in tramp steamers and men in jet planes would carry it farther. In a week it would have reached all the places we had missed: Australia, Micronesia, the islands of the South Pacific, the Poles.

That left the lunar bases and the orbital stations. Ours and Theirs. But they had to be supplied from Earth; the infection would come to them in rockets.

For better or worse, we had what we had always said we wanted. Ahimsa. The Age of Reason. The Kingdom of God.

And I still didn't know whether I was Judas, or the little Dutch boy with his finger in the dike.

I didn't find out until three weeks later.

We stayed on in Capetown, resting and waiting. Listening to the radio and reading newspapers kept me occupied a good part of the time. When restlessness drove me out of doors, I wandered aimlessly in the business section, or went down to the harbor and spent hours staring out past the castle and the breakwater.

But my chief occupation, the thing that obsessed me now, was the study of Aza-Kra.

He seemed very tired. His skin was turning dry and rough, more gray than blue; his eyes were blue-threaded and more opaque-looking than ever. He slept a great deal and moved little. The soy-bean paste I was able to get for him gave him insufficient nourishment; vitamins and minerals were lacking.

I asked him why he didn't make what he needed in his air machine. He said that some few of the compounds could be inhaled, and he was making those;

that he had had another transmuter, for food-manufacture, but that it had been taken from him; and that he would be all right; he would last until his friends came.

He didn't know when that would be; or he wouldn't tell me.

His speech was slower and his diction more slurred every day. It was obviously difficult for him to talk; but I goaded him, I nagged him, I would not let him alone. I spent days on one topic, left it, came back to it and asked the same questions over. I made copious notes of what he said and the way he said it.

I wanted to learn to read the signs of his emotions; or failing that, to catch him in a lie.

A dozen times I thought I had trapped him into a contradiction, and each time, wearily, patiently, he explained what I had misunderstood. As for his emotions, they had only one visible sign that I was able to discover: the stiffening and trembling of his neck-spines.

Gestures of emotion are arbitrary. There are human tribes whose members never smile. There are others who smile when they are angry. Cf. Dodgson's Cheshire Cat.

He was doing it more and more often as the time went by; but what did it mean?

Anger? Resentment? Annoyance? *Amusement?*

The riots in the United States ended on the 9th and 10th when interfaith committees toured each city in loudspeaker trucks. Others began elsewhere.

Business was at a standstill in most larger cities. Galveston, Nashville and Birmingham joined in celebrating Hallelujah Week: dancing in the streets, bonfires day and night, every church and every bar roaring wide open.

Russia's delegate to the United Nations, who had been larding his speeches with mock-sympathetic references to the Western nations' difficulties, arose on the 9th and delivered a furious three-hour tirade accusing the entire non-Communist world of cowardly cryptofascistic biological warfare against the Soviet Union and the People's Republics of Europe and Asia.

The new staffs of the Federal penitentiaries in America, in office less than a week, followed their predecessors in mass resignations. The last official act of the wardens of Leavenworth, Terre Haute and Alcatraz was to report the "escape" of their entire prison populations.

Police officers in every major city were being frantically urged to remain on duty.

Queen Elizabeth, in a memorable speech, exhorted all citizens of the Empire to remain calm and meet whatever might come with dignity, fortitude and honor.

The Scots stole the Stone of Scone again.

Rioting and looting began in Paris, Marseilles, Barcelona, Milan, Amsterdam, Munich, Berlin.

The Pope was silent.

Turkey declared war on Syria and Iraq; peace was concluded a record three hours later.

On the 10th, Warsaw Radio announced the formation of a new Polish Provisional Government whose first and second acts had been, respectively, to abrogate all existing treaties with the Soviet Union and border states, and to petition the UN for restoration of the 1938 boundaries.

On the 11th East Germany, Austria, Czechoslovakia, Hungary, Rumania, Bulgaria, Latvia and Lithuania followed suit, with variations on the boundary question.

On the 12th, after a brief but by no means bloodless putsch, the Spanish Republic was re-established; the British government fell once and the French government twice; and the Vatican issued a sharp protest against the ill-treatment of

priests and nuns by Spanish insurgents.

Not a shot had been fired in Indo-China since the morning of the 8th.

On the 13th the Karelo-Finnish S. S. R., the Estonian S. S. R., the Byelorussian S. S. R., the Ukrainian S. S. R., the Azerbaijan S. S. R., the Turkmen S. S. R. and the Uzbek S. S. R. declared their independence of the Soviet Union. A horde of men and women escaped or released from forced-labor camps, the so-called Slave Army, poured westward out of Siberia.

VI

On the 14th, Zebulon, Georgia (pop. 312), Murfreesboro, Tennessee (pop. 11,190) and Orange, Texas (pop. 8,470) seceded from the Union.

That might have been funny, but on the 15th petitions for a secession referendum were circulating in Tennessee, Arkansas, Louisiana and South Carolina. Early returns averaged 61% in favor.

On the 16th Texas, Oklahoma, Mississippi, Alabama, Kentucky, Virginia, Georgia and— incongruously—Rhode Island and Minnesota added themselves to the list. Separatist fever was rising in Quebec, New Brunswick, Newfoundland and La-

brador. Across the Atlantic, Catalonia, Bavaria, Moldavia, Sicily and Cyprus declared themselves independent states.

And that might have been hysteria. But that wasn't all.

Liquor stores and bars were sprouting like mushrooms in dry states. Ditto gambling halls, horse rooms, houses of prostitution, cockpits, burlesque theaters.

Moonshine whisky threatened for a few days to become the South's major industry, until standard-brand distillers cut their prices to meet the competition. Not a bottle of the new stocks of liquor carried a Federal tax stamp.

Mexican citizens were walking across the border into Arizona and New Mexico, swimming into Texas. The first shipload of Chinese arrived in San Francisco on the 16th.

Meat prices had increased by an average of 60% for every day since the new control and rationing law took effect. By the 16th, round steak was selling for \$10.80 a pound.

Resignations of public officials were no longer news; a headline in the Portland *Oregonian* for August 15th read: WILL STAY AT DESK, SAYS GOVERNOR.

It hit me hard.

But when I thought about it, it was obvious enough; it was

such an elementary thing that ordinarily you never noticed it—that all governments, not just tyrannies, but *all* governments were based on violence, as currency was based on metal. You might go for months or years without seeing a silver dollar or a policeman; but the dollar and the policeman had to be there.

The whole elaborate structure, the work of a thousand years, was coming down. The value of a dollar is established by a promise to pay; the effectiveness of a law, by a threat to punish.

Even if there were enough jailers left, how could you put a man in jail if he had ten or twenty friends who didn't want him to go?

How many people were going to pay their income taxes next year, even if there was a government left to pay them to?

And who was going to stop the landless people from spilling over into the nations that had land to spare?

Aza-Kra said, "These things are not necessary to do."

I turned around and looked at him. He had been lying motionless for more than an hour in the hammock I had rigged for him at the end of the room; I had thought he was asleep.

It was raining outside. Dim, colorless light came through the slotted window blinds and

striped his body like a melted barber pole. Caught in one of the bars of light, the tips of two quivering neck-spines glowed in faint filigree against the shadow.

"All right," I said. "Explain this one away. I'd like to hear you. Tell me why we don't need governments any more."

"The governments you have now—the governments of nations—they are not made for use. They exist to fight other nations."

"That's not true."

"It is true. Think. Of the money your government spends, in a year, how much is for war and how much for use?"

"About sixty per cent for war. But that doesn't—"

"Please. This is sixty per cent now, when you have only a small war. When you have a large war, how much then?"

"Ninety per cent. Maybe more, but that hasn't got anything to do with it. In peace or wartime there are things a national government does that can't be done by anybody else. Now ask me for instance, what."

"Yes, I ask this."

"For instance, keeping an industrial country from being dragged down to coolie level by unrestricted immigration."

"You think it is better for those who have much to keep

apart from those who have little, and give no help?"

"In principle, no, but it isn't just that easy. What good does it do the starving Asiatics if we turn America into another piece of Asia and starve along with them?"

He looked at me unwinkingly.

"What good has it done to keep apart?"

I opened my mouth, and shut it again. Last time it had been Japan, an island chain a little smaller than California. In the next one, half the world would have been against us.

"The problem is not easy, it is very difficult. But to solve it by helping is possible. To solve it by doing nothing is not possible."

"Harbors," I said. "Shipping. Soil conservation. Communications. Flood control."

"You do not believe these things can be done if there are no nations?"

"No. We haven't got time enough to pick up all the pieces. It's a hell of a lot easier to knock things apart than to put them together again."

"Your people have done things more difficult than this. You do not believe now, but you will see it done."

After a moment I said, "We're supposed to become a member of your galactic union now. Now

that you've pulled our teeth. Who's going to build the ships?"

"Those who build them now."

I said, "Governments build them now."

"No. Men build ships. Men invent ships and design ships. Government builds nothing but more government."

I put my fists in my pockets and walked over to the window. Outside, a man went hurrying by in the rain, one hand at his hat-brim, the other at his chest. He didn't look around as he passed; his coffee-brown face was intent and impersonal. I watched him until he turned the corner, out of sight.

He had never heard of me, but his life would be changed by what I had done. His descendants would know my name; they would be bored by it in school, or their mothers would frighten them with it after dark. . . .

Aza-Kra said, "To talk of these things is useless. If I would lie, I would not tell you that I lie. And if I would lie about these things, I would lie well; you would not find the truth by questions. You must wait. Soon you will know."

I looked at him. "When your friends come."

"Yes," he said.

And the feathery tips of his neck-spines delicately trembled.

They came on the last day of August—fifty great rotiform ships drifting down out of space. No radar spotted them; no planes or interceptor rockets went up to meet them. They followed the terminator around, landing at dawn: thirty in the Americas, twenty in Europe and Asia, five in Africa, one each in England, Scandinavia, Australia, New Zealand, New Guinea, the Philippines, Japan.

Each one was six hundred feet across, but they rested lightly on the ground. Where they landed on sloping land, slender curved supporting members came out of the doughnut-shaped rim, as dainty as insect's legs, and the fat lozenge of the hub lowered itself on the five fat spokes until it touched the earth.

Their doors opened.

In twenty-four days I had watched the nations of the Earth melt into shapelessness like sculptures molded of silicone putty. Armies, navies, air forces, police forces lost their cohesion first. In the beginning there were individual desertions, atoms escaping one at a time from the mass; later, when the pay failed to arrive, when there were no orders or else orders that could not be executed, men and women simply went home, orderly, without haste, in thousands.

Every useful item of equip-

ment that could be carried or driven or flown went with them. Tractors, trucks, jeeps, bulldozers gladdened the hearts of farmers from Keokuk to Kweiyang. Bombers, small boats, even destroyers and battleships were in service as commercial transports. Quartermasters' stores were carried away piecemeal or in ton lots. Guns and ammunition rusted undisturbed.

Stock markets crashed. Banks failed. Treasuries failed. National governments broke down into states, provinces, cantons. In the United States, the President resigned his office on the 18th and left the White House, whose every window had been broken and whose lawn was newly landscaped with eggshells and orange rind. The Vice-President resigned the next day, leaving the Presidency, in theory, to the Speaker of the House; but the Speaker was at home on his Arkansas farm; Congress had adjourned on the 17th.

Everywhere it was the same. The new Governments of Asia and Eastern Europe, of Spain and Portugal and Argentina and Iran, died stillborn.

The Moon colonies had been evacuated; work had stopped on the Mars rocket. The men on duty in the orbital stations, after an anxious week, had reached an agreement for mutual disarmament

and had come down to Earth.

Seven industries out of ten had closed down. The dollar was worth half a penny, the pound sterling a little more; the rouble, the Reichsmark, the franc, the sen, the yen, the rupee were waste paper.

The great cities were nine-tenths deserted, gutted by fires, the homes of looters, rats and roaches.

Even the local governments, the states, the cantons, the counties, the very townships, were too fragile to stand. All the arbitrary lines on the map had lost their meaning.

You could not say any more, "Japan will—" or "India is moving toward—" It was startling to realize that; to have to think of a sprawling, amorphous, unfathomable mass of infinitely varied human beings instead of a single inclusive symbol. It made you wonder if the symbol had ever had any connection with reality at all: whether there had ever been such a thing as a nation.

Toward the end of the month, I thought I saw a flicker of hope. The problem of famine was being attacked vigorously and efficiently by the Red Cross, the Salvation Army, and thousands of local volunteer groups: they commandeered fleets of trucks,

emptied warehouses with a calm disregard of legality, and distributed the food where it was most needed. It was not enough—too much food had been destroyed and wasted by looters, too much had spoiled through neglect, and too much had been destroyed in the field by wandering, half-starved bands of the homeless—but it was a beginning; it was something.

Other groups were fighting the problem of these wolf-packs, with equally encouraging results. Farmers were forming themselves into mutual - defense groups, "communities of force." Two men could take any property from one man of equal strength without violence, without the penalty of pain; but not from two men, or three men.

One district warned the next when a wolf-pack was on the way, and how many to expect. When the pack converged on a field or a storehouse, men in equal or greater numbers were there in stand in the way. If the district could absorb, say, ten workers, that many of the pack were offered the option of staying; the rest had to move on. Gradually, the packs thinned.

In the same way, factories were able to protect themselves from theft. By an extension of the idea, even the money problem began to seem soluble. The old

currency was all but worthless, and an individual's promise to pay in kind was no better as a medium of exchange; but promissory notes obligating whole communities could and did begin to circulate. They made an unwieldy currency, their range was limited, and they depreciated rapidly. But it was something; it was a beginning.

Then the wheel-ships came.

In every case but one, they were cautious. They landed in conspicuous positions, near a city or a village, and in the dawn light, before any man had come near them, oddly-shaped things came out and hurriedly unloaded boxes and bales, hundreds, thousands, a staggering array. They set up sun-reflecting beacons; then the ships rose again and disappeared, and when the first men came hesitantly out to investigate, they found nothing but the beacon, the acre of carefully-stacked boxes, and the signs, in the language of the country, that said:

THIS FOOD IS SENT BY
THE PEOPLES OF
OTHER WORLDS TO
HELP YOU IN YOUR
NEED. ALL MEN ARE
BROTHERS.

And a brave man would lift the top of a box; inside he would

see other boxes, and in them oblong pale shapes wrapped in something transparent that was not cellophane. He would unwrap one, feel it, smell it, show it around, and finally taste it; and then his eyebrows would go up.

The color and the texture were unfamiliar, but the taste was unmistakable! Tortillas and beans! (Or taro; or rice with bean-sprouts; or stuffed grape leaves; or herb omelette!)

The exception was the ship that landed outside Capetown, in an open field at the foot of Table Mountain.

Aza-Kra woke me at dawn. "They are here."

I mumbled at him and tried to turn over. He shook my shoulder again, buzzing excitedly to himself. "Please, they are here. We must hurry."

I lurched out of bed and stood swaying. "Your friends?" I said.

"Yes, yes." He was struggling into the black dress, pushing the peaked hat backwards onto his head. "*Hurry.*"

I splashed cold water on my face, and got into my clothes. I pulled out the top dresser drawer and looked at the two loaded automatics. I couldn't decide. I couldn't figure out any way they would do me any good, but I didn't want to leave them

behind. I stood there until my legs went numb before I could make up my mind to take them anyhow, and the hell with it.

There were no taxis, of course. We walked for three blocks along the deserted streets until we saw a battered sedan nose into view in the intersection ahead, moving cautiously around the heaps of litter.

"Hold your breath!"

The car moved on out of sight. We found it around the corner, up on the sidewalk with the front fender jammed against a railing. There were two men and a woman in it, Europeans.

"Which way?"

"Left. To the mountain."

When we got to the outskirts and the buildings began to thin out, I saw it up ahead, a huge silvery-metal shelf jutting out impossibly from the slope. I began to tremble. *They'll cut me up and put me in a jar*, I thought. *Now is the time to stop, if I'm going to.*

But I kept going. Where the road veered away from the field and went curving on up the mountain the other way, I stopped and we got out. I saw dark shapes and movements under that huge gleaming bulk. We stepped over a broken fence and started across the dry, uneven clods in the half-light.

Light sprang out: a soft,

pearl-gray shimmer that didn't dazzle the eye although it was aimed straight towards us, marking the way. I heard a shrill wordless buzzing, and above that an explosion of chirping, and under them both a confusion of other sounds, humming, droning, clattering. I saw a half-dozen nightmare shapes bounding forward.

Two of them were like Aza-Kra; two more were squat things with huge humped shells on top, like tortoise-shells the size of a card table, with six long stump-ended legs underneath, and a tangle of eyes, tentacles, and small wriggly things peeping out in front; one, the tallest, had a long sharp-spined column of a body rising from a thick base and four startlingly human legs, and surmounted by four long whiplike tentacles and a smooth oval head; the sixth looked at first glance like an unholy cross between a grasshopper and a newt. He came in twenty foot bounds.

They crowded around Aza-Kra, humming, chirping, droning, buzzing, clattering. Their hands and tentacles went over him, caressingly; the newt-grasshopper thing hoisted him onto its back.

They paid no attention to me, and I stayed where I was, with my hands tight and sweating on

the grips of my guns. Then I heard Aza-Kra speak, and the tallest one turned back to me.

It reeked: something like brine, something like wet fur, something rank and indescribable. It had two narrow red eyes in that smooth knob of a head. It put one of its tentacles on my shoulder, and I didn't see a mouth open anywhere, but a droning voice said, "Thank you for caring for him. Come now. We go to ship."

I pulled away instinctively, quivering, and my hands came out of my pockets. I heard a flat, echoing *crack* and a yell, and I saw a red wetness spring out across the smooth skull; I saw the thing topple and lie in the dirt, twitching.

I thought for an instant that I had done it, the shot, the yell and all. Then I heard another yell, behind me; I whirled around and heard a car grind into gear and saw it bouncing away down the road into town, lights off, a black moving shape on the dimness. I saw it veer wildly and slew into the fence at the first turn; I heard its tires popping as it went through and the muffled crash as it turned over.

Dead, I thought. But the next minute I saw two figures come erect beyond the overturned car and stagger toward the road.

They disappeared around the turn, running.

I looked back at the others, bewildered. They weren't even looking that way; they were gathered around the body, lifting it, carrying it toward the ship.

The feeling—the black depression that had been getting stronger every day for three weeks—tightened down on me as if somebody had turned a screw. I gritted my teeth against it, and stood there wishing I were dead.

They were almost to the open hatch in the oval hub that hung under the rim when Aza-Kra detached himself from the group and walked slowly back to me. After a moment one of the others—a hump-shelled one—trundled along after him and waited a yard or two away.

"It is not your fault," said Aza-Kra. "We could have prevented it, but we were careless. We were so glad to meet that we did not take precautions. It is not your fault. Come to the ship."

The hump-shelled thing came up and squeaked something, and Aza-Kra sat on its back. The tentacles waved at me. It wheeled and started toward the hatchway. "Come," said Aza-Kra.

I followed them, too miser-

able to care what happened. We went down a corridor full of the sourceless pearl-gray light until a doorway suddenly appeared, somehow, and we went through that into a room where two tripeds were waiting.

Aza-Kra climbed onto a stool, and one of the tripeds began pressing two small instruments against various parts of his body; the other squirted something from a flexible canister into his mouth.

And as I stood there watching, between one breath and the next, the depression went away.

I felt like a man whose toothache has just stopped; I probed at my mind, gingerly, expecting to find that the feeling was still there, only hiding. But it wasn't. It was gone so completely that I couldn't even remember exactly what it had been like. I felt calm and relaxed—and safe.

I looked at Aza-Kra. He was breathing easily; his eyes looked clearer than they had a moment before, and it seemed to me that his skin was glossier. The feathery neck-spines hung in relaxed, graceful curves.

... It was all true, then. It had to be. If they had been conquerors, the automatic death of the man who had killed one of their number, just now, would-

n't have been enough. An occupying army can never be satisfied with an eye for an eye. There must be revenge.

But they hadn't done anything; they hadn't even used the gas. They'd seen that the others in the car were running away, that the danger was over, and that ended it. The only emotions they had shown, as far as I could tell, were concern and regret—

Except that, I remembered now, I had seen two of the tripedals clearly when I turned back to look at them gathering around the body: Aza-Kra and another one. And their neck-spines had been stiff. . . .

Suddenly I knew the answer.

Aza-Kra came from a world where violence and cruelty didn't exist. To him, the Earth was a jungle—and I was one of its carnivores.

I knew, now, why I had felt the way I had for the last three weeks, and why the feeling had stopped a few minutes ago. My hostility toward him had been partly responsible for his fear, and so I had picked up an echo of it. Undirected fear is, by definition, anxiety, depression, uneasiness—the psychologists' *Angst*. It had stopped because Aza-Kra no longer had to depend on me; he was with his own people again; he was safe.

I knew the reason for my nightmares.

I knew why, time and again when I had expected Aza-Kra to be reading my mind, I had found that he wasn't. He did it only when he had to; it was too painful.

And one thing more:

I knew that when the true history of this time came to be written, I needn't worry about my place in it. My name would be there, all right, but nobody would remember it once he had shut the book.

Nobody would use my name as an insulting epithet, and nobody would carve it on the bases of any statues, either.

I wasn't the hero of the story.

It was Aza-Kra who had come down alone to a planet so deadly that no one else would risk his life on it until he had softened it up. It was Aza-Kra who had lived for nearly a month with a suspicious, irrational, combative, uncivilized flesh-eater. It was Aza-Kra who had used me, every step of the way—used my provincial loyalties and my self-interest and my prejudices.

He had done all that, weary, tortured, half-starved . . . and he'd been scared to death the whole time.

We made two stops up the coast and then moved into Al-

geria and the Sudan: landing, unloading, taking off again, following the dawn line. The other ships, Aza-Kra explained, would keep on circling the planet until enough food had been distributed to prevent any starvation until the next harvests. This one was going only as far as the middle of the North American continent—to drop me off. Then it was going to take Aza-Kra home.

I watched what happened after we left each place in a vision device they had. In some places there was more hesitation than in others, but in the end they always took the food: in jeeploads, by pack train, in baskets balanced on their heads.

Some of the repeaters worried me. I said, "How do you know it'll get distributed to everybody who needs it?"

I might have known the answer: "They will distribute it. No man can let his neighbor starve while he has plenty."

The famine relief was all they had come for, this time. Later, when we had got through the crisis, they would come back; and by that time, remembering the food, people would be more inclined to take them on their merits instead of shuddering because they had too many eyes or fingers. They would help us when we needed it, they would

show us the way up the ladder, but we would have to do the work ourselves.

He asked me not to publish the story of Chillicothe and the month we had spent together. "Later, when it will hurt no one, you can explain. Now there is no need to make anyone ashamed; not even the officials of your government. It was not their fault; they did not make the planet as it was."

So there went even that two-bit chance at immortality.

It was still dawn when we landed on the bluff across the river from my home; sky and land and water were all the same depthless cool gray, except for the hairline of scarlet in the east. Dew was heavy on the grass, and the air had a smell that made me think of wood smoke and dry leaves.

He came out of the ship with me to say good-bye.

"Will you be back?" I asked him.

He buzzed wordlessly in a way I had begun to recognize; I think it was his version of a laugh. "I think not for a very long time. I have already neglected my work too much."

"This isn't your work—opening up new planets?"

"No. It is not so common a thing, that a race becomes ready for space travel. It has not hap-

pened anywhere in the galaxy for twenty thousand of your years, I believe, and I hope, that it will not happen again for twenty thousand more. No, I am ordinarily a maker of—you have not the word, it is like porcelain, but a different material. Perhaps some day you will see a piece that I have made. It is stamped with my name."

He held out his hand and I took it. It was an awkward grip; his hand felt unpleasantly dry and smooth to me, and I suppose mine was clammy to him. We both let go as soon as we decently could.

Without turning, he walked away from me up the ramp. I said, "Aza-Kra!"

"Yes?"

"Just one more question. The galaxy's a big place. What happens if you miss just one blood-thirsty race that's ready to boil out across the stars—or if nobody has the guts to go and do to them what you did to us?"

"Now you begin to understand," he said. "That is the question the people of Mars asked us about you twenty thousand years ago."

The story ends there, properly, but there's one more thing I want to say.

When Aza-Kra's ship lifted and disappeared, and I walked

down to the bottom of the bluff and across the bridge into the city, I knew I was going back to a life that would be a lot different from the one I had known.

For one thing, the *Herald-Star* was all but done for when I came home: wrecked presses, half the staff gone, supplies running out. I worked hard for a little over a year trying to revive it, out of sentiment, but I knew there were more important things to be done than publishing a newspaper.

Like everybody else, I got used to the changes in the world and in the people around me: to the peaceful, unworried feel of places that had been electric with tension; to the kids—the wonderful, incredible kids—; to the new kind of excitement, the excitement that isn't like the night before execution, but like the night before Christmas.

But I hadn't realized how much I had changed, myself, until something that happened a week ago.

I'd lost touch with Eli Freeman after the paper folded; I knew he had gone into pest control, but I didn't know where he was or what he was doing until he turned up one day on the wheat-and-dairy farm I help run, south of the Platte in what used to be Nebraska. He's the advance man for a fleet of spray planes

working out of Omaha, aborting rabbits.

He stayed on for three days, lining up a few of the stiff-necked farmers in this area that don't believe in hormones or airplanes either; in his free time he helped with the harvest, and I saw a lot of him.

On his last night we talked late, working up from the old times to the new times and back again until there was nothing more to say. Finally, when we had both been quiet for a long time, he said something to me that is the only accolade I am

likely to get, and oddly enough, the only one I want.

"You know, Bob, if it wasn't for that unique face of yours, it would be hard to believe you're the same guy I used to work for."

I said, "Hell, was I that bad?"

"Don't get shirty. You were okay. You didn't bleed the help or kick old ladies, but there just wasn't as much to you as there is now. I don't know," he said. "You're—more human."

More human.

Yes. We all are.

SFA NOTES

Don't go crazy, go to Bolivia, insanity is relatively unknown there. This is one of the disease-free areas that are still a mystery to modern science. Certain areas of the globe, for no observable reason, are free of certain diseases. A Brazilian town of 15,000 has been free of malaria for at least a century—yet it is surrounded by malaria-infested areas. Other spots in South America are free of heart disease and hookworm. These areas should be investigated before an influx of new residents changes their characteristics.

Spring is here—and with it, of course, the Indian Lake Conference, on May 22 & 23 to be exact. One of the sprightliest of regional fanventions, it draws people from all parts of the states. Bob Bloch will be master of ceremonies, among the attendees expected are E. E. Smith, Arthur Clark and Bob Tucker. All this will occur at the Hotel Ingals, Bellefontaine, Ohio.

Shades of E. C. Large—In this issue of THE DISSECTING TABLE, Damon Knight discusses the novel SUGAR IN THE AIR by E. C. Large. The main consideration of this book is the synthesizing of sugar, that is the manufacture of sugar chemically—without the aid of green plants. Fiction has again become fact, the National Research Council of Canada has succeeded in synthesizing maltose, sucrose and trehalose. They used the same general techniques described in Mr. Large's book.

PINNACLE

B Y L E E J . F O X

Along with the mineralogists, the cartographers and military engineers who go to the moon, there will be a silent group of men with axes and nylon ropes. They will seek out and climb Mount Huygens for the same reason they climbed Everest, Annapurna and K2; not for fame, riches or personal gain, but simply because they are there.

Carleton lay as he had fallen, one leg crumpled uselessly under his body, at the bottom of a deep defile. The stark, harsh rocks of the Moon's landscape rose in jagged splendor all around him. The mountains marched away in serrated ranks as far as his eyes could see, painted in blazing white and darkest black, incredible and fearful. Surprisingly, he did not lie in black shadow, but in the full glare of the sun's light, deflected downward by some quirk of refraction. Above him towered the grim face of Mount Huygens, rising five miles into the atmosphereless sky. And somewhere higher on the mountain's side—8,000 feet or more—was the rest of Carleton's climbing party.

He supposed the slow motion fall, caused by the one-third

gravity of the moon, had prevented his being killed outright. But the bouncing, slow as it was, had battered his radio to useless junk. His leg must be broken, although he felt no pain, for how else could it be so twisted beneath him. The slow gentle hiss of escaping oxygen meant that his air hose must have been punctured at some time during his headlong fall by jagged shards of rock. He guessed he had about 15 or 20 more minutes to live. It would take the rescue party, which must already be under way, several hours to inch their way downward toward him. Even a radio call of their base at Lunar City for a rescue "scooter" could not possibly reach him in time.

Dying is a lonely thing for any man. And dying alone on

the moon at the bottom of some crevasse is a hell of a place to die, Carleton thought.

Just what makes a man spend his whole life climbing mountains: Carleton thought back on his own exploits of mountaineering—back to the beginning of his interest in climbing when Edmond Hillary's ascent of Mount Everest in 1953 electrified the world. Carleton had been ten years old at the time—an impressionable boy who made Edmond Hillary his ideal, and vowed to follow in his footsteps.

And he had. He, too, climbed Everest, being the first to ascend the grim North face where Mallory and Irvine were last seen. Hillary's ascent had been from the south. He became a world renowned authority on mountaineering, and made many spectacular climbs in the Himalaya mountains. Dhaulagiri and Makalu, treacherous rock and ice giants of the Himalayas fell to his repeated assaults, although they had once been pronounced unclimbable. And now, at the age of 39 he was leading the first expedition to climb Mount Huygens, the highest mountain on the moon.

For eighteen years Carleton had done all kinds of mountain climbing—rock climbing and snow climbing; he had scaled perpendicular rock chimneys and

hacked his way up icy glaciers. It had become his philosophy, his way of life, Conquest of Nature's most challenging obstacles. To brave all manner of hardships, dangers, and elements; to surmount all these at last and stand on the pinnacle, wind whipping across your face, knowing you can go no higher. To know that you had finally achieved the top, fulfilling oneself—that was living, and it was good.

He now lay mostly in shadow. The light, inching across the rocks had left him to shine on other debris, tossed there perhaps millions of years ago. It was more comfortable to be out of the blazing glare of the sun, but more difficult to be found. But there wasn't time.

He looked up at the sky, always awe inspiring when viewed from the atmosphereless moon. It lay above him like a cup, ebony black and pinpointed with myriads of cold white dots of light. The sun was a blazing ball of white fire far to the left, dimming out all stars in its vicinity, while the earth swam over a dark, jagged crest, green and glowing.

Thank God for that, breathed Carleton.

The earth was three-quarters full, and as the shadow of the sun ran across the Earth's face, Carleton could faintly see the

geographical outlines traced. The Earth was turned so that he saw the vague outlines of the Americas, and the Rocky Mountains where he had done his first climbing as a boy.

There have been others to die like this—brave men who died pursuing their ideal. I guess it's not such a bad way to go, he mused.

And then miraculously there was sound in his dead ear-phones. Clipped British accents were calling his name.

"Carleton! Robert Carleton! Are you there?"

He saw them then, several men scrambling down the vertical wall toward him.

"I say, old man," continued the voice, "you have had a nasty fall. Let's help you up."

Strong arms reached for him, lifting him to his feet. They smiled as they helped him.

"My leg, I think, is broken, and my air line has a leak," Carleton began.

There was something odd about these men.

"Who are you fellows, anyway?"

"I'm George Leigh-Mallory, and this is A. F. Mummery, and here is Andrew Irvine, and Dudley Wolfe, and Herman Schaller," came the reply.

And then Carleton knew what was wrong. These men were dressed for mountain climbing, with warm clothes, sturdy boots, ice axe and coiled rope hanging from their belts, but no space suits. And the familiar names were those of famous mountaineers who had been killed while climbing.

"You won't need your space suit, now," one of the group remarked.

Carleton suddenly became filled with a wondrous expectation as Mallory gently helped him out of the cumbersome gear.

"All right, fellow," spoke Mallory, "let's go to the top."

FANVETS IN '54

New York and east coast Scientifictionados can look forward again to the annual convention of the Fanvets. This affair will be held in WERDERMANN'S HALL, 156-160 Third Avenue, New York 3, N. Y.

Free admission as always; guests, speakers and an auction of books, magazines, illustrations and other SF items are featured. If you are within walking, running or flying distance make it a point to show up at 1:00 P. M. on Sunday, the 25th of April.

COLLISION ORBIT

B Y K. M A C L E A N

The mountain men who opened up the frontier in the west weren't settlers, they were trappers, traders, fighters and gunmen—the men who didn't fit back home. The kind of men who will be needed on the frontier of space. . . .

I was drowsing when I heard the airlock clanking and banging. Anyone can come into my ship, glance through the magazines, play the films and select food from the stock without me bothering to wake up until they're ready to buy something, but this sound was different. By the way they were clanking and cursing and trying to get the airlock to work, they were strangers. I came wide awake.

Last month's load of news from Earth had some interesting stories. Four convicts were missing from New San Quentin. There had been a bank robbery three days later with a really terrific haul of money taken. After that the Earth to Moon lift ship had taken off with ap-

parently a full load, but six of the passengers never reported in on the Moon after the ship landed and were considered to be missing, and one of them had been found dead on Earth a mile away from take off point.

An hour and a half after the Lift ship had landed at Luna, the space ship Phobus, of the Luna to Phobus-Mars run, took off suddenly without waiting for cargo, and vanished into space with only her pilot and first engineer known to be on board.

The news was a month old by the time it got to me, but it was easy to add those three items up. The convicts had the ship and were heading for the Asteroid Belt.

Well here they were at the



Asteroid Belt. First stop, Sam's Place. I grinned slightly and unscrewed two of the knobs, on the radio screwed one back in the wrong place and put the other under the counter. Then I switched the radio on to Send, in spite of the fact the knob said Receive. They were coming. Yawning, I swung around on my revolving chair.

"Careful with the airlock. Air's not free around here."

They crowded in, four figures muffled in heavy spacesuits with green globes concealing their heads.

"Don't move, Mister." Two guns were suddenly pointed at my middle.

"Good evening, Gentlemen," I said amiably. "I was expecting you would drop in. What can I sell you?"

"You didn't expect us, Fatty," said one taking off his helmet and showing a young haggard face that needed a shave. He snickered nervously, put out his hand and was given a gun by one who reached up and began taking off his own helmet. The young one was nervous but not stupid, for with the gun pointing steadily at me he moved quickly to one side as far as he could get. He leaned against the front wall to cover me from the opposite direction of the other gun holder. Whatever ideas I'd had

about maneuvering one in front of the other and grabbing a gun vanished right then.

"Shove that funny - talk, Mister." said the other, a husky with a stiff crewcut. "We're not buying anything, we're taking this place over."

The other two had their helmets off now. There was a big thoughtful looking one who went over to look at the supplies, and a lean one who went off looking for the can. They all looked haggard, underfed and tired. Probably they were haggard from having trouble holding down their food. Spacesickness gets practically anyone the first months out.

The big one wandered into the stacks of supplies and began opening cartons and nibbling anything edible.

That made me mad, but I didn't say anything, just got up and looked to see what he was opening, and almost got shot as the young gunman's hand jerked nervously at my motion.

"Sit down and turn off those neon signs and radio beams. We've got to get moving."

"Yeah," said the husky, as if surprised that he'd think of it. "Turn em off."

There was a big neon sign wrapped around my ship, saying, SAM'S. I flipped a couple of switches, and it went off for the

first time in a long time. There was also a set of swinging radio beams like lighthouse beams which said "Sam's Merchandise" in my voice. It was a sound that spacemen could home in on when they ran out of food or something broke and they needed a spare part. I flipped another switch and that went off too for the first time since I'd set it up. A lot of men depended on that radio beam.

But I didn't expect it would stay off long.

The radio was humming quietly at "Rec." as if waiting for incoming calls, but what it was doing was broadcasting everything that was said inside the store. It wasn't beamed at anyone, so the signal was weak, but anyone who wanted to know why my homing beams had gone off could find out by tuning to my frequency and listening.

Ferguson's place was on my orbit, somewhere close ahead. If he noticed me going by, he'd wonder why I didn't stop to deliver the mail and the groceries.

All I had to do was to stay alive for awhile, or make sure they killed me in a certain way.

"Man the controls, Mister," said the husky one. "Take us out of here before someone comes to see why the lights went off."

"Any direction," added the

big man who was chewing at the supplies. He had an easy deep drawl. "We'll tell you later where to go."

The fourth man came out of the can and laughed at that, bringing clear the idea that I wasn't going to be around long.

Abruptly I realized I had made a bad mistake. "Wait a minute," I said, letting myself sound startled. "I'm not wearing my coverall." I was wearing jockey shorts, nothing else, and I figured that they'd think I was modest. I spotted the coverall lying across a case of algin butter and reached for it. "Mind?"

The husky with the gun waved it at me, "Get those jets going," he snarled. "Stop stalling around."

"Let him put his pants on," smiled the big one, coming forward again with an open magazine in hand. "No reason for anyone to be closer than a thousand miles, people spread thin in space. They won't all arrive here for a picnic before he gets dressed."

I didn't wait for the gunman's nod, just took a chance and grabbed the coverall to put it on. They did not object again, apparently taking the big one's say as the final word.

The coverall slipped silkily over bare feet and legs, pulled up and zipped tight to cover

body arms and hands comfortably in thin, flexible, silky fabric, with a fancy looking collar, high behind the neck, low and open in front, and held in shape by the edge being a light metal ring, with another light metal ring and a little mirror-like limp plastic hanging down the back attached from the collar, like the space suitish touches that were the style in men and women's coats on Earth.

The material had a mixture of slow and fast elastic threads so that it fitted like skin, but gave easily with every motion, and it was painted with a coating of aluminum, so that it shone like a flexible mirror.

It was an intensely practical outfit, used by almost everyone in the Belt. The rest of mankind didn't have anything like it. Give an amateur necessity and not much material to work with and he can out-invent any hired expert.

But it looked useless, ornamental and gaudy, and I did not cut much of a figure in it. Lots of people get fat around the waistline in space. Something to do with not enough exercise for the legs. No place to walk to.

I looked like I'd just put on a coat of aluminum paint and a fancy collar, and knew it. There were stares and grins.

Let them laugh now.

"Look at that, a silver plated man."

"Isn't he *purty*."

"Look at those muscles bulge. Or are they muscles?"

I clenched my teeth together, climbed into the pilot's chair and pushed the steering rod forward cautiously until I could feel the jets beginning to thrust.

The big one, the one who was probably the brains of the outfit, came forward and leaned over my shoulder watching what I was doing. He chewed crackers noisily beside my ear and turned the pages of a magazine. "We're well stocked back there. Enough food and entertainment for a year."

"It's all due to customers," I said. "Two months' worth, per person, to be delivered here and there." I was bearing down on an irregularly shaped lump of rock on the screen that was probably Ferguson's camouflaged place. It turned red on the screen, meaning I was on a collision course. I couldn't tell that it was Ferguson's without having the radio open to his signal, but if that was his place, probably all his alarm bells were ringing inside, and he was screeching into his mike, trying to warn me to change course.

I moved the control rod a notch sideways to avoid it, and the screen turned it white again,

showing it was no longer a danger.

"How about putting on some more speed," drawled the thinker. He was used to having people take his advice, it showed in his voice.

"Don't want to shift the cargo, might break the eggs," I pushed the rod forward a notch more, and with the extra fraction of a gee acceleration the inertial pull toward the rear grew noticeable, and everyone stood slanted as though the floor were tilting back.

"Eggs." They all laughed nervously. I could tell from the sound they still weren't used to space travel, and the tilting floor had them queasy again.

"Yeah, eggs," I said irritably. "It took me fifteen hundred dollars to have them ship a box of fertilized eggs and hatching chicks out here. That's investment enough to make sure there is eggs for the store."

"You kidding?" asked the young gunholder and laughed. "Where's the chickens?"

"Some of the boys took on the job of raising them. If you boys will tell me your specialties, safe cracking or what—I'll tell you what kind of a job you'll fit."

For an instant there was an angry surprised silence, then the nervous gunboy with a smile that was half a snarl, walked

over behind me and clunked me on the side of the head with his gun, not hard, just enough to hurt a little as a warning.

"Look, Fatty, we aren't here to apply for a job."

"You'll be working anyhow," I said.

The blow that hit my head that time crossed my eyes for a minute. The young gunman's voice was pitched almost to a falsetto with irritation. "We don't need any work. We've got nine hundred thousand to hide out with until it cools, and we ain't going to spend it buying eggs!"

The husky made a reproving noise and the gunboy turned on him defensively and barked, "Why not tell him? He won't tell anybody anything, after now."

I had not expected them to keep me around their hideout for a pet after they took the store back to the stolen spaceship, but this sounded like I was closer to getting a bullet in the back of the head than I expected.

"We won't need him for a pilot much longer," the Brains of the gang said calmly, still looking over my shoulder. He had not made a sound of objection when the kid clunked me. "The way I see him working this rig, you just push that stick forward to go, sideways to turn and

harder to go faster. If you're going to hit anything the screen turns it red and you steer around. Simple. I can handle the piloting myself."

I hadn't expected him to catch on to the way the controls worked. Suddenly they didn't have any use for me, and no reason to keep me alive. I had to give them a reason, and fast.

I turned and grinned. "You'd better try another tack, boys, or you're likely to find yourselves kicking in space with your space-suits off." I should have planted the idea sooner. This late, talking big might set off those already tightened triggers.

Nobody pulled any triggers, they were a cool bunch.

"Find out what he means," said The Brains. He slid calmly into the control seat as the others yanked me out, and rested his hand lightly on the control rod. "Maybe he wasn't kidding when he said he expected us."

They dragged me upright, and Husky swung a blow to my wind. It didn't penetrate. I keep fit. He looked surprised when I didn't double up. "Blubber," he growled uncertainly, rubbing his fist. "You got a trap for us? Talk quick." He rubbed his knuckles and looked at my nose.

I value my nose. "No trap. There are better ways of approaching the Belt than you

boys are using. The woods are full of fugitives. I'll give any of them a stake and a start and a place to live where no one knows the orbit but the guy who delivers supplies, that's me. But if you try anything else . . ."

He grunted something and swung, and I barely moved my nose out of the way before getting a fist in the face. The second swing connected and made my nose a throbbing radiating ache in my face. The two men at my arms hung on while I tried to pull loose and get at the husky, and we thrashed around the room for a few moments until I cooled off and they brought me back standing facing him.

He was getting impatient, hefting a pistol by its barrel like a short club. He glanced from it to my face.

"Spit it out!"

Behind me at the controls came the Brains' smooth drawl. "He was probably running us into a trap. I've changed course."

"Brother," I said, breathing through my mouth. "If you do anything to me—" While I was talking they let me turn to the Brains, and he swung around to look at me. I kept talking.

"If you do anything to me, you are running yourself into a trap. I've got friends. Around here, when people get obnoxious they are likely to find themselves

stuffed alive into a garbage chute and the lever pulled for them to go fight space, if they like making trouble! It's an interesting way to die, and it doesn't leave a mark."

During that speech the Brains and I were staring into each others eyes. I jerked my head sideways to indicate the garbage chute when I mentioned it and his glance flicked over to see where it was, and then locked with mine again until I finished talking. Then he spoke coldly.

"You've named it, Buster."

He looked at the others. "Stuff this bag of wind down the garbage chute. And make sure he's conscious."

It took all three of them some fifteen minutes to do it. I was careful to keep the fight away from the supplies so as not to break anything, but otherwise I gave a good Br'er Rabbit imitation of a man fighting to stay away from death. Their faces were the only part that stuck out of their spacesuits, but I bent Gunboy's nose, almost closed both of Number Four's eyes, and made a good try at yanking off a part of Husky's left ear.

I don't like being called Fatty.

They got mad enough to have shot me, but they had already put their guns away to make

sure I'd be alive to appreciate what was going to happen to me.

For one lucky moment in the scramble I had all three of them tripped and down, and had a knee on Gunboy's back, fishing in his spacesuit leg pocket for his gun. Then somebody kicked me in the groin. I lost track of what was happening and just tried to breathe. When I came back to noticing anything they were busy stuffing me into the garbage chute, putting muscle into straightening me out from my curled up crouch, and making laughing cracks about it being a tight fit.

I clawed to get out and tried to choke down a few more deep breaths, but I was still too jangled inside and too weak for my arm-waving to bother them.

They pushed my head down with the lid, clanged the lid on and locked it into place. It cut off the sound of their laughing to a distant murmur.

Then someone must have found and pulled the disposal lever.

The bottom of the chute opened. Air pressure fired me out into space like a human cannonball from a circus cannon.

For a moment, I flung end over end, the multicolored lights of the milky way, and the intermittent harsh burning glare of the sun flashed into my naked

eyes, then I shut my eyes tightly, while the pressure of air bulged my chest out and whooshed out my mouth, pushing it open like a soft expanding pillow.

I clenched my eyes more tightly closed. I wasn't going to explode like the characters in visio stories, pressure drop was not enough for that, because I never kept more than three pounds pressure in the store atmosphere anyhow. A pressure drop like that can't kill, but it might rupture the bloodvessels in my eyes.

Like a mousetrap the ring that hung down from the back of my collar swung up on a hinge, bringing a collapsed balloon of mirror coated plastic over my head and swung down past my face, nearly taking off the tip of my battered nose. As it clanked into place over the collar ring, suddenly the air pushing out of my lungs filled the soft plastic bag and it expanded with a pop into a helmet globe, darkly transparent from the inside, mirrorcoated on the outside to reflect most of the sun's destructive glare.

I was protected by an emergency spacesuit. From the outside now I looked like a solid silver figure with a round silver sphere instead of a head.

The mousetrap spring on the

helmet globe was set to dangle down the back, and its catch was supposed to hold it back there until a sudden pressure drop expanded a tiny balloon under the catch and slipped the spring free.

I'd tested them in space before distributing them, but this was the first time my coverall had been tested with me in it, and I found myself considerably surprised and grateful that it really worked.

There wasn't much air in the emergency headglobe with me. I should have been breathing heavily up to the last minute to store oxygen in my blood, but the kick had stopped that. There was barely enough breath to pray with.

I had to be lucky twice. My second guess had to be right too.

It was.

Just about the time I could no longer tell the sun from the spinning bursts of white light in my head Ferguson's scooter showed up along side with its jets trailing blue light and his anxious face peered out.

After that I was out of the fight.

For three hours the store went on, picking up more and more quiet little scooters as the settlers trailed after the inter-

esting conversation being broadcast by my radio. They followed closely, but always a little to one side, so none of them ever went on "collision" course and rang an alarm in the store control board. They were quiet and inconspicuous, listening on their radios with great interest to the talk of nine hundred thousand dollars, and to the fugitives talk of hiding out with the supplies in the store.

It was not until my stolen ship came to a meeting place where floated the huge shiny expensive Phobus, the ship they had taken from the commercial line, not until the convicts began coming out the airlock to go back to the Phobus—not until then did the scooters close in.

The settlers brought my store back to me, its thin walls plugged full of holes, and patched, and brought back one survivor, Mister Brains. He must have needed brains to survive, since the settlers had probably been over-enthusiastic in the capture. I did not ask what became of the other five convicts or the kidnapped pilot and first engineer of the Phobus. I believe in being tactful.

I took the survivor's fingerprints, and gave him a stake of supplies and a spinhouse to grow vegetables in until he decided what kind of work he could do.

We called a conference of all settlers over the radio to decide what to do with the loot, and on vote, divided up the nine hundred thousand among us as a penalty to the Brains for not using his brains, barging in and making a row, when he could have found out on Earth how to be smuggled out here quietly on the regular run. He had a vote too, and voted against it, but it didn't do him much good. We're a democracy, and one vote doesn't go far. Nine hundred thousand divided fifty ways is pinmoney, compared to the prices of things out here anyhow. Frontiers always get bad inflation.

I sent the new one's fingerprints down to my strongbox in a bank on Earth. Everyone's fingerprints are in there, and everyone knows that anytime I disappear suddenly the box will be opened and the prints handed to the police. But I don't black-mail them, and they trust me to keep that box closed, because my prints are in there too.

It just makes everyone very careful of my health, so that they are inclined to resent outsiders trying to kill me.

That's why I can leave the airlock open for anyone to walk in. I know when I'm safe.

The parts of the Phobus are coming in very handy for building. We'll have a city here yet.

FRANKENSTEIN, or FRIDAY?

BY L. JEROME STANTON

They've arrived, the sentient and calculating mechanical brains. They aren't developed yet, the stage they are in now bears about the same relationship to the final product as an amoeba does to man. Whether they mean the future or the extermination of the human race has yet to be determined.

Science-fiction writers are both inventive and hardy, as dozens of anthologies (and numerous bill collectors) ably testify. But, in spite of their undeniable inventiveness, there are nevertheless certain science-fiction ideas that get used over and over again like the roller towel in a cheap boardinghouse. Now, in recent times, particularly in the last fifty years or so, a certain tendency in human affairs has become apparent that certainly merits a long, hard look from any science-fiction reader worthy of his Bug-Eyed Monsters. Briefly, the tendency is for those ideas that s-f writers use so frequently to become the accomplished fact of laboratory

and factory, and show up on the breakfast table, or in milady's bath. This notable trend is quite remarkable, and even a little disquieting at times. The disquiet arises because Man, the natural-born Sophomore, has a distressing ability to make things like atom bombs and laboratory-grown plagues come true before anyone other than a few science-fiction writers has given even an idle thought to the consequences.

Examples of this ability to make the science-fiction cliché become hard reality on a dollar-down, over-the-counter basis are already cluttering up the landscape in almost embarrassing profusion. Already, some of them



show an alarming capacity to do things to us and our culture that the inventor in his wildest dreams never imagined. Science-fiction readers are well aware that long before motor transportation, radio, television, motion pictures and wonder drugs were actually developed, speculative writers like Wells, Verne, Gernsback, and many others had "invented" these useful gadgets over and over again for their readers. True, in many cases an actual development in some scientist's lab had pointed the way, but it was often a science-fiction writer who snatched up the bare possibility of, say, air transportation, and ran off with it in all directions, including the sociological. The development of atomic energy is a classic example of an idea belabored again, and again, and again by the yeasty minds and nimble typewriters of science-fictionists. It hardly needs pointing out here that sure enough, the Sharp Apples in science laboratories have again come through and made physical reality of this idea, which for years was the sole property and often the main support of cent-a-word-and-dodge-the-landlord writers.

Fair enough. It looks as though some subtle but powerful process is at work here, busily

making fiction idea into fact, usually with little reckoning of the overall result. The s-f clichés are coming true, with no guarantee as to whether they will be a Frankenstein's Monster to destroy Mankind, or a faithful Man Friday, to serve his will and smooth his path to the stars and the future. That being the case, let's take a peek at some of the real old warhorses in the s-f writer's bag of tricks, to see which one may be next on the list for production. Quite a few of the typewriter-weary standbys are still not being sold in Macy's Toy Department, or used to settle boundary disputes between nations.

There's matter transmission and its first cousin the matter duplicator, also antigravity, and good old time travel, the paradox-lover's delight. And there's telepathy, and the other more or less mystical members of the fecund "tele" family, like portation, kinesis, and so on. All of these are in the same state that air travel, radio, and nuclear energy were in not so very long ago, but none of them seems at the moment fully ripened and ready to drop.

Ah! But there is one venerable old chestnut among the s-f cliché-ideas that seems temptingly ripe, and dozens of laboratories are shaking the tree like

mad. This one is the s-f writer's vision of the man-created thinking machine, which is so often pictured as taking over the increasingly complex job of solving man's technical, social, and philosophical problems for him. Hardly another idea has been dealt with on so many levels in science fiction, or with as great a variety of conclusions. For that matter, hardly any other idea poses more provocative questions for us to speculate over, even before the idea becomes solid reality. Oddly enough, the development that has put realization of the all-embracing machine-thinker at least on the horizon of possibility, if not within our grasp, has itself received practically no public notice. This may be true because the device itself is still in a crude, undeveloped state, although quite capable of demonstrating the disturbing ability that makes it so important. As of this writing, it has not been applied to any practical use, in the way that the big computers have been. This may account for the lack of publicity. And yet, without the fundamental principle embodied in the design of this crude gadget, the science-fiction idea of the vast God-machine which absorbs all knowledge and spews out infallible answers to all questions would

still be completely out of reach. Superficially, the new device is not very impressive, but it can do something that the monster computers like ENIAC and TY-PHOON cannot master, for all their massed vaults of tubes and relays and transistors. This new, disturbing egg now hatching is. . . .

The Homeostat.

And the new factor in its performance that sets it apart from ENIAC, MANIAC, OMIBAC, and the other computers is this: The Homeostat can not only perform the operations for which it is first set up, but *it can learn from its own mistakes, and alter its own internal organization so as to solve problems that it failed to solve on earlier attempts.*

In the prim language of the laboratory, the peculiar ability described may not appear impressive, let alone earth-shaking. Yet the difference between this ability and the action of computers in solving mathematical problems of whatever complexity is both subtle and important. It is a real difference in *kind* of ability, rather than a difference in degree of complexity. It is through the use of this principle, in conjunction with other machine abilities already developed, that the way is opened to possible development of the real thinking machine, and the

many uncomfortable questions it suggests.

To understand the Homeostat and its importance, it will help to consider just what the difference between a "brain" and a computer is, and how "thinking" differs from calculation as performed by computers. Oddly enough, defining these various terms is about the most troublesome part of the whole story. This becomes doubly difficult if we attempt to satisfy at one stroke philosophers, biologists, psychologists, physicists, and just plain people. A good deal of the trouble arises because these worthy but divergent groups cannot agree among themselves on just what abilities a thing must have to be called a real brain, or on what "thought" is, for that matter. On one score they are all pretty well agreed: that neither an analog nor a digital computer is a true brain, although either can perform some of the functions of a brain. Most will also agree that whatever the thought process is, it involves something more than the mathematical operations performed by computers, regardless of their speed or size.

A good many people appear to regard thought as something apart from action. Some might describe it as "the sort of thing I'm doing in considering this

question," which isn't very helpful. To the biologist, however, the human brain is as much an acting machine as any other part of the body. It takes in something (information) through certain specialized channels we call the senses. Then it performs certain actions on the information taken in, often with reference to other related information already stored in memory. After that, the results of these actions may be sent as commands to the effectors (muscles, etc.) of the body, or as information to be stored in the memory banks, or both. Like other bodily organs, the brain plays an important part in the effort to survive. Indeed, in human beings, the brain seems to have a more important role in survival than in any other animal. It is with survival, the most basic goal of animal existence, then we can best start in defining "brain" and "thought," as a step toward understanding the Homeostat and its importance.

The tendency to strive toward a goal is a characteristic of living organisms, in particular the tendency to strive toward the goals of individual and species survival, which at times may conflict. This goal-seeking urge in living matter is insured by what may well be the most fundamental truism of the

Cosmos; things that can survive do, and things that can't, don't. If we define 'survival' as meaning that a thing continues to maintain its identity, the truism applies just as readily to a photon of radiant energy as to a molecule, or a rabbit, or a thinking machine.

The intrinsic goal-seeking urge, then, appears to be one of the characteristics a true brain must have. This, however, is something easy to build into an electro-mechanical contrivance, as various ingenious people like Claude Shannon of Bell Telephone Laboratories have ably demonstrated. In fact, we can go on and state several other abilities that a true brain has, which are also properties of computers and similar devices. It must be able to receive and store information. It must also be capable of combining related items of information, and derive from them other items of information, which may either be stores or provided as outputs or both. Oddly enough, this statement implies the ability to predict the probable course of future events, as a result of the derivation of new information from combinations of the old. The capacity to predict the probable future from study of the past has sometimes been put forward as the unique

characteristic of a true brain. Yet obviously this can't be true, or every radar gun director becomes a "true" brain!

What, then, really is the unique ability a true brain must have in addition to the qualities mentioned above? What test do we apply to separate the thinking goats from the finger-counting or angle-measuring sheep like ENIAC and the rest? This is the question Dr. W. R. Ashby had to answer for himself before he could devise the Homeostat, which appears to be the first man-made device able to cross the invisible dividing line.

As Director of Research at Barnwood House, one of the foremost psychiatric hospitals in England, Dr. Ashby had ample opportunity to consider the human brain in various state of function and malfunction. As a consequence, his analysis of the qualities a device must have before it can truly be regarded as a brain is both interesting and significant. Dr. Ashby has set down his ideas in an absorbing book appropriately titled "Design For A Brain," and it will be helpful to summarize his conclusions here before we consider how the Homeostat illustrates them in physical fact.

Apparently, the most unique property of a true brain is *an ability to make changes in its*

own internal circuits that tend to further its own survival. Putting it another way, it is the capacity to so control its own internal organization as to keep its ability to survive in its existing environment at a maximum. This means also the ability to make changes in its internal organization to compensate for changes in the environment that tend to lower its power to survive. An illustration of the difference between this ability to compensate or adapt to environmental changes and the goal-seeking ability will clarify the point. We can easily construct a small machine that will seek a goal in a way quite similar to a rat seeking food through the paths of a maze. Suppose we make a little motor-driven machine that can propel itself across a floor, powered by a small motor and self-contained battery. We can equip it with a pair of photocells and design it so that it turns toward a source of light and goes to it. This is quite similar to the rat going in the direction its sense of sight or smell tells it the food lies. Both are seeking a goal, and we can fairly consider that the urge to seek the goal is built-in. But in seeking their goals, the machine and the rat will show important fundamental differences in behavior.

Let's put our little machine down on the floor at one side of a room, and set up the lamp bulb goal directly opposite, with no obstacles between. When the lamp is switched on, the machine turns immediately and makes straight for it, by a direct path. Similarly, a hungry rat will go directly toward food when it is offered. Now suppose that directly above a part of the path the machine takes across the floor to the goal we suspend an inverted wire basket. This we arrange so that when the machine moves under it, a catch is released that drops the basket over the machine, trapping it, and thus preventing it from reaching its goal. Then we arrange a similar trap over the path the rat takes toward its goal.

Immediately a fundamental difference in behavior shows up. The machine, after being thus trapped any number of times, will continue to make the same mistake of following the most direct path toward the goal. It does this because all of its functions are built-in to start with, and *it cannot make any changes within itself to avoid the path which it has found by experiment does not actually lead to the goal.* In other words, it cannot learn by the experience of failure to seek out another path which may have a chance of success.

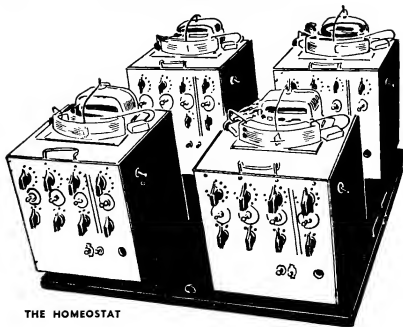
The rat on the other hand can, and does, as every warehouse owner well knows. After our experimental rat has been trapped under the descending wire basket once, it is likely to go around the area directly underneath the basket when the experiment is tried again, even if a considerable detour is necessary. And after two or three frustrating experiences, even the stupidest rat learns to avoid the basket trap. The rat has been able to make changes within its own patterns of conduct so that the goal which was not obtained on the first try is reached on a later try. In other words the rat is *adaptive*, and our simple-minded little machine is not. Not only that, but Mr. Rat (he's earned a little dignity by this demonstration of superiority) shows us another unique characteristic of a real brain. His efforts to find a successful path to the goal may be more or less random, but he shows a high degree of ability to select successful methods from unsuccessful ones, and use them over again.

It can be shown that most if not all of the activities of animals with brains, including man, are the result of the two fundamental factors stated above. We have a goal, or goals, and we show a capacity to change

our ways of trying to reach the goal when the way we are using does not work. This adaptive ability seems to be the really unique ability a thing must have before we can really call it a brain. And that, ladies and gentlemen, is just what Dr. Ashby has built into the Homeostat. True, the device illustrates adaptability in a very crude, simple sense, as compared with human adaptability, but it *does* employ the same principle. This time, the difference is one of degree of complexity, not kind of function.

And thereby hangs our somewhat frightening tale, because this is the one function of a true brain that is not already in our grasp. The possible consequences of building a real super-brain are something to make even the reckless thoughtful, but before we consider them, let's get an idea of what the Homeostat actually is, and what it does, as described in Dr. Ashby's book.

Basically, the Homeostat consists of several similar units, which are interconnected in a particular way. In the original model, there are four units. A single unit consists of a magnet suspended on a pivot, inside a coil of wire that actually is made up of four coils, one for each unit. It is the behavior of the



THE HOMEOSTAT

magnets of the four units that show the adaptive conduct of the gadget. A part of each unit is a trough in the shape of an arc of a circle, which contains a liquid that will conduct electricity, but has some internal resistance. Each trough is connected to a source of electric current so that one end is at a potential of -2 volts, and the other end is at -15 volts. A light but stiff metal arm attached to the pivot supports the magnet in the field of the coil, and also carries at its other end a metal vane that makes contact with

the electrolyte liquid in the trough. The whole assembly mounted on the pivot is free to turn through an arc of about 90 degrees. Thus the electric potential picked up by the contact will vary between -2 and -15 volts with the position of the magnet with respect to the coil. This voltage is carried to the grid of a vacuum tube in each unit, and acts to control the amount of current flowing in the vacuum tube plate circuit.

The output current through the vacuum tube in each unit is carried to the other units in

series, and is made to flow through the coil surrounding the magnet in each unit. A switch and potentiometer in each unit makes it possible for the experimenter to reverse the direction the current flows through any coil in each unit at will, and also to decide what portion of the total current output from each unit flows through the coil. The remaining part of each unit is a device called a uniselector, which contains 25 resistances of *random* value, and a rotary stepping switch. The uniselector is made so that when and *only* when the output current from any unit reaches a value sufficient to cause a relay to close. In addition, switches in each unit are provided so that the experimenter can take control of the potentiometers and polarity switches and set in any values he wishes, or can surrender control to the uniselector, in which case, the Homeostat will select its own values for current and polarity.

So much for the construction of the machine. In operation, each unit is adjusted so that when the magnet is in its central position, midway between the extremes of its possible swing, there is zero current output from the unit. Then if the magnet is deliberately pulled away from the central position, there

will be a current output that increases with the displacement, and since this current flows through the coil, it tends to return the magnet to the center. Thus the unit seeks the center as a goal. Let's say that it is happy at the center, and is always trying to be happy.

After each unit has been individually set up to be happy in the center, we can switch on the whole machine, make any arbitrary adjustments of any controls other than the "happiness" adjustment, and watch what happens. Some settings of the controls leave the whole machine stable as before; that is, there will be changes in the amount of current flowing through each part of the total coil of each unit, but the Homeostat will automatically reach a balance of currents such that the magnets resume their central positions after a period of time. However, some manual settings of the switches and potentiometers can be found that cause unstable conduct; that is, they cause the magnets to go to positions away from the center, perhaps to the extreme end of the travel, up against the stops. In the first case, it is as if an animal had adjusted to conditions in its environment in a way to make itself happy, and in the second, as if it had become neurotic, and

was driving^{*} itself away from its optimal condition.

So far, we have not really permitted the Homeostat to demonstrate its really unique ability, the capacity to make changes within itself to adjust to the outside environmental conditions we impose on it. That happens when we switch two of the units over to the "Uniselector" instead of the "Manual" position, so that current in either large enough to close its "Change" relay will cause the stopping switch to move to a new position. Remember that when this switch moves, it switches in a different resistance of random* value, which causes a proportional random change in the amount of current flowing through the coils.

Now, we have in effect a situation in which the two units kept on manual control serve as an "environment" for the two units put on their own. We can call them the "animal" if we wish, as it is their behavior in trying to get "happy," or centered, that illustrates adaptation, just as a cat adapts itself to the changing heat from a fireplace by moving closer or farther away. If we make some arbitrary change in the settings of the polarity

switches or current-controlling potentiometers in the two "environment" units, the other two units may not be able to adjust so that the currents in the parts of each main coil balance, and thus move the magnet to the happiness position. When this happens, and the arm swings away from the center, it reaches a point where the current causes the relay in that unit to close, switching in a different resistance. This one *may* be of such a value that the "animal" can now get "happy," or it may not. If it is not, the relay gets pulled closed again, and the Homeostat tries another value, or as we'd say of the rat, it tries another path through the maze to the food. Even with only two units serving as our "animal," 25 times 25, or 625 different combinations of resistor values are available for trial. And when all four are serving as animal, a total of 390, 625 possible combinations are available.

With the two-and-two set-up, when the experimenter changes the polarity setting of a switch in the "environment" units, the other two units immediately start hunting for settings of the uniselectors that will permit the "animal" pair to be happy again. The same thing happens when the "environment" potentiometer settings are changed. And this

*The resistor values for the stepping switches were actually chosen from a published table of random numbers.

happens every time a change is made in the environment.

But there is something more, an ability which will astonish many who find nothing too startling in the Homeostat's performance up to here. When the whole device is set on the uniselectors, so that it is all acting as an experimental "animal" with a brain of its own, it really goes to town. It can not only adjust itself to be happy no matter how we set the polarity and current controls, but, *we can make changes in the mechanism itself, and it will still adapt, and get happy again.*

After Dr. Ashby and the other experimenters had put the Homeostat through a stiff set of tests by juggling the controls, they tried other tricks to confuse it. They reversed the polarity of the current flowing in the electrolyte trough of one of the units. This meant that in that unit, moving the magnet in a given direction now produced an opposite effect to that originally built into the machine. It adapted, and speedily was happy again. Then they reversed the connections between the output of one unit and the input of another. It adapted.

Then they took out one magnet and turned it around, reversing its magnetic polarity. Homeostat was equal to the

change, and got happy as all get out, in jigtime. By this time the experimenters were beginning to get a little puzzled. Just what *did* you have to do, short of smashing the whole apparatus with a sledge, an impulse which occasionally cropped up, in order to keep it from readjusting itself and getting happy again?

They put bars across the troughs, so the arms could not swing through the full arc any more. It adapted. They connected two of the arms together with a light glass fiber, so that they had to move together. It adapted. Other, more complicated changes were made in the mechanism, and many different combinations of settings of the polarity and current controls were tried with each change. And each time, the Homeostat . . . but you get the idea. Unless the experimenters cut out the adaptive faculty itself, the relay and unilelector combination, the darned thing would adapt to anything they could devise, short of destruction by one means or another.

Well then, is the Homeostat a real brain? Obviously not, since it lacks certain of the attributes of the animal brain, but it *does* exhibit the all-important adaptive ability that the giant computers with their vast memory banks and electronic ganglia

Jack. But the Homeostat certainly suggests that the day is not far off when a vastly refined version of the Homeostat, combined with equally advanced versions of the other devices with their huge memories and problem-solving powers, may be put together.

What then? What sort of performance could we expect from such a machine, and, above all what would we *do* with it, how far would we trust it? As to performance, there are some things that can be predicted with a good deal of confidence. For one thing, such a machine could, starting out right from scratch, learn to do very difficult and complex things in a way very like if not identical to that of a human being learning to play chess. It would *not* need to have built into it even such things as a knowledge of the rules of chess, such as the moves. These things could all be learned by trial and error, memorized, and the proper memory referred to whenever the situation on the board required it. And in the end, such a machine could wind up playing chess, even if the man who built it never himself even heard of the game. A complex and capacious machine could undoubtedly learn to play better chess than a simple one, and ultimately there appears to be no reason to

think a machine could be built to play better chess than any human being. The only possible limit would seem to be reached if a machine capable of comprehending all possible moves and combinations of moves and their effects were built. No machine capable of playing a better game than that could be built, for then the limitation would be in the game itself, rather than in the player. In other words, the outcome of any game played would be infallibly determined by the first move, as is the case for even we poor, bumbling human brains in games like tic-tac-toe.

Now so far, no human being seems to have come very close to a complete comprehension of chess, so that he infallibly wins every game in which he is permitted to say who shall make the first move. Yet chess is far, far less complex than our social or economic system, with their intricate, constantly changing paths of communication and influence, and their fantastically complex networks of internal and external feedbacks. This immediately suggests that, unless we can breed a strain of humans with superbrains to handle our complex social and economic problems, we may have to try building machines to do it. With humans, the very idea of a

strain of SUPER-humans seems to scare hell out of everybody, probably because nobody is now smart enough to figure out what the motives of such individuals would be. This may not remain true, as we get to understand ourselves better, particularly our emotional make-up. But it is pretty clear that the superman idea is not popular in present world opinion.

The first idea of many people would be that a machine, not having the human sex drive and other emotional factors, would be more trustworthy in solving our knotty problems. Many also think that it would be easier to get people to abide by the decisions of a machine, and put them into effect. It might even be possible to so connect the machine into our economic and social system that its "happiness" condition, and the general well-being, survival and happiness of mankind coincided. That might eliminate the chance that the machine would exhibit motives that conflicted with ours. It would, that is, IF we really knew what things are necessary for our own survival and happiness, and IF we had any way of insuring that our glorified machine would not make internal readjustments in itself so that its motives were no longer the same as ours.

But wait. It already appears that the better brain we make, the more it begins to resemble, and act like, animal brains. To be blunt, it begins to show a capacity for behaving neurotically, in a way all too familiar to psychiatrists. Remember, we are just groping our way into an understanding of how a brain works, in somewhat the manner of a man trying to examine the fine details of construction of a microscope, *with* the same microscope. Nobody can be sure yet that having emotions and a capacity for neurotic or insane conduct is not a basic property of *any* true brain, whether made of protoplasm or transistors. If such a thing is true, the only way to insure that a machine stayed sane and rational would be to keep continuous check on the functionality of each individual component. And even this would only prevent malfunctions due to breakdown of parts.

There appears at the moment to be no way to prove that such a complex machine would remain continuously rational, even if no parts failed, even though the Homeostat's performance is encouraging in this respect. Such checkups on the condition of parts would at least have one advantage over trying to deal with animal brains, nowever. About the only way we can do

much physical checking on the condition of parts of the animal brain is to look for tumors with X-ray or ultrasonic waves, or infections through less direct methods. Few people like the idea of having their skulls opened up just for an inspection of the works, unless there are already very serious indirect evidences of something wrong within, like a tendency to jump under subway trains, or bet against the Yankees.

But we cannot cheaply get ourselves off the hook by simply saying we won't ever build any vast God-machine to solve the gigantic problems the complexity of ourselves and our culture pose. We can't, because they are getting more complex and pressing faster than our capacity to deal with them is improving. The threat of a "thermonuclear" war is only one proof, and if more are needed, consider overpopulation, exhaustion of natural resources, mounting mental disease, or even possible invasion from outside our solar system. Sooner or later, we must get our capacity to solve problems to catch up with our ability to create them for ourselves, before one comes along that has a fatal penalty for non-solution. And since we seem to be much better able, or willing, to improve machines than we are to

improve ourselves, it looks as if we must come back to face the thorny question again.

All right, suppose at some future time we *do* build giant machines to deal with our problems. We can assume that such a machine brain would have an infallible memory capable of storing all the data that can be fed to it. It would also need an exhaustive cross-index, and very efficient means of searching for relevant data, or deciding what is relevant, for that matter. And of course, all data fed in at first would have to be "weighted," assigned a reliability rating based on how sure we are of the accuracy of data fed in. Later, the machine itself could reweight data, in the way that a human being does, as more data is accumulated. Indeed, this continuous re-evaluation of data in the light of new evidence might be one of the machine's greatest advantages, if it could be kept free of the egotism that causes humans to stubbornly persist in error in the face of truth.

Its problem-solving circuits would work at least as well as ours, and its decisions, based on total recall of all of the carefully weighted information, would be far better. And therein lies the rub. Being better decisions, some of them would certainly be different from what in our opinion

was the "best" course, and I can think of no way to keep people from having opinions about anything they can conceive of. That being so, would we have the nerve to accept the machine's directives and put them into practice? Would we, in other words, dare to trust our own handiwork when it truly performed its function of making better decisions than we can make? On the other hand, suppose we did, and suppose further that all appeared to be going well. How would we remain sure that the machine's "happiness" condition stayed coincident with ours. In other words, how could we be sure that the machine would not ultimately place maintaining its own survival and optimal condition (happiness) above ours? Remember, it is supremely adaptive, and smarter than anybody. That implies that it could surely deceive us as to its motives in any given decision, because one of the factors in all its decisions would be its vast knowledge of human capacities and limitations.

Of course, we could build another machine to check on the actions of the first one, but how we could keep it from taking the same path, I'm darned if I can see. Another thing, any machine-brain, however designed, is

bound to show some trend or bias, some general slant in its attack on problems that might turn out to have disastrous consequences for us. This is true because, in the design of such a brain-machine, there are many decisions that we would have to make on a more or less arbitrary basis. Should the plate voltages on the tubes be near the maximum permissible, or at some lower value? How quickly should a given circuit respond?

But supposing that in our future civilization all goes well, and the machine-brain remains the docile, obedient man-Friday, serving humanity with all of its great ability, solving all the knotty problems, making the world a place of increasingly easy existence for man. With no struggle to try our powers, no threat of dire consequences to spur us into efforts to improve ourselves, or even to maintain our present level of ability, what would happen to the human species? Would we indeed sink to the level of a mere parasite living on the bounty of the machine, or would we find within ourselves the drive to achieve and excel? To all these vexing and disquieting questions there seems to be only one really sure solution. Build the machine, and find out.

AMOEBA-HUNT

BY R. H. REMINGTON

The problem: how to capture an animal that you can't shoot, bomb, stun or trap? The crew of the SPARTACUS had to find the answer or return to the slavery they had so recently escaped.

Abner Hudek came up out of his chair so fast that he was standing fully upright before his seat had had time to sink down and merge back into the floor.

"What was that?" he said in a choked voice.

Lord Glanders yawned and examined his over-long fingernails with an air of affected boredom. When he spoke, his words were even more mincing and his tones more patronizing than usual.

"I've asked you," he said, "to catch an amoeba for me. I want one for my private zoo. If you don't care to undertake the assignment you are free to leave, but I must insist on your preserving the proper deportment for one of your class whatever you decide to do. Another outbreak like that and I shall be forced to have you chastised."

His face burning, Hudek

bowed his head humbly and made the proper apologies. He bent into a sitting position and the seat rose up again to meet him.

Lord Glanders acknowledged the apology with a gracious nod.

Hudek stared at the flaccid face and corpulent figure of the man sitting opposite him. Too much time in space, Hudek realized, especially as captain of his own ship, made a man forget the social usages of twenty-second century Earth. He would have to be extremely careful. A chastisement could mean anything from ten lashes to the loss of his ship and a return to hopeless bondage for Hudek and his crew.

And there would be no possibility of appeal from Lord Glanders' action, whatever form it took. For Hudek and his men were of the Emp Class, Free



spacemen now, it was true, but all sons of bonded Emps, and their word would be meaningless beside that of Lord Glanders who was not only a member of the Supe Class, but a director-son of the far-flung Atproco in the bargain.

"If Your Lordship please," Hudek began, this time in a much subdued voice, "would you explain further? I don't quite understand what it is you want of me."

Lord Glanders smiled. These free Emps had to be treated with a firm hand or they forgot their place.

"It's quite simple, my good man. Baron Welk of Incomco has been making himself unbearable boasting of the new multileg in his collection, which he brought back last month from a hunting trip on Sirius II. I've decided that an exhibition of a caged amoeba at the next Atproco Ball will be an effective way of silencing the tiresome Baron. Your ship has been recommended to me as ideal for this sort of undertaking. It's much too important for me to chance entrusting to the Emps of my space-yacht."

Hudek was still floundering. "B-but Your Lordship! An amoeba is a microscopic animal! And what do you want a space-ship for? Any stagnant pond—"

"How long have you been out in space, Hudek? It's been almost a year since reports arrived on Earth of the discovery of giant amoebas on Procyon IV!"

Hudek sank back in his seat with a sigh of relief. "Oh, *giant* amoebas!" Then he began to see difficulties again. "But, Lord Glanders, how does one go about capturing an amoeba?"

Lord Glanders shrugged. "That's your problem, Hudek. Rope it; smother it into submission; I don't care. However, I want it alive and in perfect condition. Are you willing to take the commission?"

Hudek considered silently for a moment. The only way free ships like Hudek's *Spartacus* were able to make out was by doing jobs too difficult for bonded vessels. Most of the money from the previous voyage was eaten up. Let them once get into debt, and the crew of the *Spartacus* could kiss their ship and their freedom good-bye.

It was impolite to state a price, but Hudek knew from past experience that the Supes rewarded generously anyone who enabled them to achieve a slight triumph over another of their class. Lord Glanders' reputation was good, in that respect at least.

"I'll do it," Hudek said heavily.

"Good man!" Lord Glanders

rose, indicating that the interview was terminated. Hudek rose also, respectfully, and both chairs became one with the gold-cloth rug on the floor. A liveried butler arrived in answer to Lord Glanders' ring, and Hudek prepared to follow him to the Emp's exit. When Hudek was at the door of the room, Lord Glanders called out, "By the way, Hudek, when do you expect to be ready to leave?"

Hudek considered. "It will take about a week to round up supplies and equipment."

Lord Glanders nodded. "Good. Have a suite made ready for myself and a few servants. I'll have my things brought over tomorrow." He touched a spot on the wall.

Hudek stepped forward. "B-but—" he began, and found himself facing a blank wall. Lord Glanders was gone.

Back on the *Spartacus*, Hudek assembled his crew in the mess hall and told them the story. He had been afraid they wouldn't approve, and, when he had finished speaking, he could see his suspicions confirmed in their angry faces.

Chief Engineer McGill was the first to break the heavy silence.

"Look, Skipper," he said, "I've been with you since the day the *Spartacus* shipped on her maiden

voyage as a free ship with a free crew, and I've always tended to my engines and let you do the thinking. If you say we go after a giant amoeba, that's all right with me: you'll think of some way of grabbing its tail. But this business of Lord Glanders coming along— It won't work and you know it!"

The other crewmen grumbled their disapproval.

"The damn Supe will act like he owns every one of us!"

"We'll have to spend half our time wiping His Lordship's nose!"

"What's the point of being a free spaceman with a Supe on board? It'll be the same as being a bonded Emp again!"

Hudek raised a hand for attention and the grumbling died down slightly.

"I know how you men feel," he shouted, above the din. "Believe me, I feel the same way about taking a Supe aboard the *Cuss*. What choice do we have? Sure, I could turn him down, but then what? Free ships can't compete in the open market with bonded ones; the Supes would rather see us out of business. A few more weeks of idleness and the dock fees will have eaten up all our cash. This way, we go through a few months of taking dirt from a Supe—we've done that before: it's not easy but we

can stand it—and we'll be that much closer to buying our families out of empage. What do you say, men?"

That stopped them. Each of them dreamed nightly of that wonderful future day when all their families would be free and the *Spartacus* would take off from Earth for the last time, holds full of equipment for founding a free colony somewhere in the stars.

It wouldn't be easy, but others had managed it. Not many, but some. The crew of the *Spartacus* had at least achieved the first, most difficult, step. Freedom for themselves, and a means of earning their loved ones' freedom.

Slowly, reluctantly, they signified their willingness to go along with Hudek in his plans, and left the mess hall.

Hudek watched them leave, a frown creasing his forehead. His crew had faith in him. If he said it would be right, they believed it would be. Hudek knew better.

What he had told the men had been true enough, but there was more to it. He glowered at the thought of a Supe lording it through the free corridors of the *Cuss*. Hudek felt a personal attachment for every inch of the battered ship, from her extra-large cargo lock to her spotless control room. He could still taste

the pleasure of the day he, McGill, Blenkins the Astrogator, and a few others—all of them newly out of empage and none caring to discuss just how—had pooled their meager funds and taken over the *Spartacus*, rusty and condemned in a ship graveyard.

They'd slaved, harder than they had ever worked in empage, to make her spaceworthy, and now, Hudek thought proudly, she was the equal of anything in space.

And they stood a good chance of losing her.

It was perfectly true that the laws of Earth did not hold in space: once out of the atmosphere Hudek, as captain, was the sole authority. Yet let Hudek, or any member of his crew, offend Lord Glanders, and His Lordship had merely to enter a complaint when the ship got back to Earth, and the *Spartacus* and her crew would never see space again.

Hudek walked down the passageway to his cabin up forward, shaking his head at the trouble he foresaw. Things had not always been like this. Hudek remembered the legends of the days centuries ago, when his ancestors had been free to walk the Earth, heads upright, equal to all other men. That was before all power had been con-

centrated in the hands of the mighty Twenty Companies. The families who controlled the Companies had developed into an aristocracy. All others, employees perforce of the Companies, had slowly lost their rights as free men and women and fallen into serfdom.

It was possible to buy your way out of empage, if you hoarded every quarter-credit a condescending Supe threw your way, but the trick was to stay free in a world where practically all means of making a living were controlled by Supes who preferred to have their own bonded Emps do the work. Entertainers were most fortunate, of course, because in a world where an Emp's word—even a free Emp's—was insignificant beside that of a Supe, a person who made his living by pleasing or amusing the Supes was fairly well off.

Trouble was, not everyone had talent. The rest of the free-men had to shift as best they could. Hudek and his crew were lucky in having been born as Emps to the Intransco — Interstellar Transportation Company. It gave them a trade, once they managed to get out of empage.

Hudek arrived at his cabin and called for the Third Mate on the intercom. Williams, Third Mate, only two trips removed

from empage, barged through Hudek's door and said, his voice still charged with the joy of freedom, "Hi, Abner! What can I do for you?"

Hudek grinned at the young man. He remembered his own reactions at not having to grovel before Supes anymore.

"Terry," he said. "Here's fifty credits. Get out and buy every book you can find that refers in any way to the amoeba. I want all the information I can get. This is going to be a tough job."

Terry Williams nodded, took the money, and started for the doorway. Hudek's voice stopped him.

"One more thing, Terry. Be careful. Remember to step out of the way when a Supe passes you. And if one of them addresses you, be respectful as you can. The *Spartacus* can't afford to bail out its Third Mate, so don't get into trouble."

Williams grinned widely. "Sure thing, Cap. I've been thinking about that job we've taken on. If someone told me to catch an amoeba, I wouldn't know what to do. Do you have any ideas, Cap?"

Hudek sank wearily into the chair behind his desk.

"I have no ideas at all, Terry," he told him. "No one's ever caught one before. An amoeba is just a blob of protoplasm.

You can't grab it or even hit it on the head because there isn't anything to grab or hit. We'll just have to do the best we can."

Williams nodded sympathetically and left the cabin.

Hudek spent the rest of the day requisitioning supplies and preparing quarters for Lord Glanders and his entourage.

Lord Glanders' baggage arrived the next day. Hudek had just finished making room for the Supe's three personal Emps, two pet Martian sub-dogs and their trainer, and four times as much luggage as was carried by all the crew of the *Spartacus*, when Lord Glanders arrived himself. Twenty well-wishers came with him, and a farewell party was thrown of such proportions that it took the crew the first two weeks of the voyage to clean up the debris and restore the *Cuss* to something resembling her former spotlessness.

On the day of departure Atproco declared a special holiday and every Emp who could be spared from the city's factories was driven to the docks to see the director-son off.

Lord Glanders was unaccustomed to the rigors of space as it was experienced on a tramp cargo vessel, and when he was miserable he saw to it that everyone around him was miserable. Hudek had to spend so much

time pacifying the irate noble that he was unable to examine the books Williams had brought him until the third week out.

He had decided that the most useful information to be gleaned from the books was that giant amoebas could not possibly exist, when his intercom squawked and came to life. Chief Engineer McGill's voice sounded, frightened but determined.

"Sorry, Skipper, but I'm afraid we're in for stormy weather. I just kicked our passenger out of the engine room! You'd better go soothe him."

"You did *what*!"

McGill's voice was still defiant. "I'll take all responsibility, Abner. I know what it means, but I'd do it again if I had to. The damned Supe came back aft and told me to cut the speed of the ship. Said it was interfering with his pet pooch's digestion, or something. When I told him I took orders only from you he made a pass at the throttle. I eased him out of the engine room gently as I could, but you tell the dumb—"

Hudek tore out of his cabin, leaving McGill's voice chipping paint off the bulkheads.

He found Lord Glanders pacing angrily up and down the confines of his narrow quarters. The Supe's personal Emp, who opened the door of the cabin in

answer to Hudek's knock, wore a frightened expression and scurried out of the Supe's sight as quickly as possible.

Lord Glanders spun on his heel to face Hudek and began a heated oration. Hudek cut him short.

"Lord Glanders," he said, in a quiet, steel-edged voice, "it's time we got something straight. No matter what our relative positions were before the voyage, and no matter what they will be once we get back to Earth, during this voyage I am master of this vessel and you are a passenger. Remember that! What you tried to do in the Engine Room was inexcusable. Your actions endangered the safety of the ship and the lives of the crew. If you have any complaints in the future, bring them to me and I'll see what I can do. Another attempt to take matters into your own hands, and I'll have you locked in your cabin!"

Hudek stepped back and waited for the explosion.

It wasn't forthcoming. Lord Glanders' face grew livid, then purple. He gulped for air a few times and became suddenly very calm, the color slowly draining from his face. He smiled, and Hudek found it an extremely frightening smile.

Lord Glanders' voice was smooth, smooth as a rattlesnake's

fang—and as dangerous. "Very well, *Captain* Hudek," he said. "We'll continue the trip on your terms. As you say, things will be different when we return to Earth!"

When Hudek arrived back at his own cabin, Chief Engineer McGill was waiting for him, apprehension twisting his features, leather-hard from the weathers of countless planets.

"How did it go, Skipper?"

Hudek sighed, and poured two drinks from the bottle on his desk.

"Looks like we're in for it when we get back, Mac. It's not your fault. You did what you should have done; I'm afraid I blew my top when I told Lord Glanders off."

McGill cleared a space in the litter of biology texts and sat down on the corner of Hudek's desk. He held his glass up, peering into its murky interior. When he spoke, finally, he didn't raise his eyes to Hudek's.

"There's only one way out, Abner," he said in a low voice, "and you know it. Right or wrong, Lord Glanders will see to it we're all done in, once he's safe on Earth. We can't let him get back to do it. He won't be the first Supe we've killed, you and I."

"It won't do, Mac!" Hudek's voice was uneven. "Those other

times it was kill or be killed; on-the-spot self-defense. What you're proposing would be pre-meditated, cold-blooded, murder! We aren't built that way!"

McGill shrugged and swallowed his drink.

"How are we built, then? Are we built so that we can lose the *'Cuss*, turn the crew back into Empage, and never see our families again, just because we ruffled the feelings of a good-for-nothing Supe?"

He strode to the door, then turned. "You decide, Skipper. I'll go along with you as I always have. Just give me some advance notice, so I can burn all those pretty little plans we made for our colony." He slammed the door behind him.

For the rest of the night Hudek sat unmoving at his desk, his eyes fixed on the disordered pile of books, but instead of them he saw the faces of his wife, Myra, and his two infant sons, all three Emps, owned body and soul by the Director of Intransco.

Procyon IV was small, with a gravity one-fourth that of Earth. It was water-bound; only a few bare, pointed, peaks broke through the surface of the dark green ocean that enveloped the silent, planet. The expedition which had reported the giant amoebas, discovered while they

were investigating the planet's mineral potentialities, had christened the world, *Teardrop*, but it was hard to associate any affectionate human term with Procyon IV's cheerless surface.

The *Spartacus*, built to withstand any environment, skimmed over the waters, then dived nose-first into them, automatic sealing-devices going into action to protect the jet tubes.

The anti-gravity drive took over, bringing the ship gently to rest on an underwater plateau, 700 feet below the surface.

When the last landing tremor had subsided, the Third Mate raised his freckled face from the control panel and asked, "What say, Cap; shall I switch off the ship's grav?"

Hudek considered.

"No, Terry," he said finally. "The ship is geared to normal Earth gravity. *Teardrop* has only one-fourth normal, and it would play hob with internal conditions. The last time we went off normal, the cook told me—"

He stopped suddenly. Lord Glanders had strolled into the Control Room. Hudek could feel the warm camaraderie of space drain away, as each crewman present stiffened into wariness at the sight of the hated Supe.

Lord Glanders nodded slightly to Hudek and ignored the others. He stepped past the quarter-

master and ordinary, busy at work testing conditions outside the ship, and peered out of the visiplat near the Third Mate's post.

"Nasty looking place," he said, shuddering delicately. "All that water . . . I don't see any amoebas, though. Are you sure this is the right planet, Captain Hudek?"

Terry Williams guffawed loudly. "It ain't Mars!

The quartermaster started to laugh, then remembered Lord Glanders and bent hurriedly to his work.

Lord Glanders turned and surveyed the grinning Third Mate.

"Very amusing. Uh — Williams, isn't it? Former Atproco Emp? Ah, yes, very amusing." He looked as if he were making entries in a mental notebook.

Hudek cleared his throat. "Did you want to see me about something, Lord Glanders?"

The Supe nodded, and moved back to the visiplat. "Yes, Hudek. When do you plan to begin operations?"

"Once the ship is secure," Hudek told him. "I've had men busy in the machine shop all trip building cages and traps. We'll start hunting for that amoeba of yours in a few hours."

Yawning noisily in an overly-affected way, Lord Glanders left

the visiplat and started for the door.

"Good. See that you do. This trip is taking much too long. If I'm to be back in time for the Atproco ball, you'll have to show a little speed."

The click of the door came only a split second before Terry Williams exploded into a corroding space curse.

Hudek put his hand on the quivering Third Mate's shoulder.

"Easy, boy. There's no point in losing our heads. We're all in a bad mess together, and the only way we'll ever get out of it is by thinking our way out. Finish securing the ship and get a party ready to go after the amoeba. You'll find me in the machine shop getting the equipment we'll need."

The young man exhaled loudly and grunted an assent. As Hudek left the control room, he heard the Third Mate shouting orders into the intercom.

Hudek was the first man out of the airlock. He waited for the others to assemble outside the ship, carefully testing the responses of his pressure resistant spacesuit. The trouble was, Hudek had never been in this sort of environment before, and his movements were labored and awkward. But that would wear off in time, he knew.

When all the paraphernalia of

the chase had been unloaded, the five men of the hunting crew stood unsteadily before Hudek, waiting for orders. The beams of their helmet lights criss-crossed like rapiers as each of them examined the others. Refraction and the undersea gloom made the once-familiar spacesuits look like unearthly monsters. Hudek snapped on his suit radio and all the light-beams centered on him.

"Can everyone hear me?" Hudek asked, ignoring the booming sound his voice made in the close confines of the helmet. He waited until all five replied.

"Good. Now listen closely. Keep your circuits open at all times, and don't allow yourself to get out of sight of the others. I don't want anyone getting lost, and it will be easier than you think in these surroundings. Williams, you select two men and scout on ahead. Use your hand-radar and light-beams. Report at once if any of you sight an amoeba. The rest of us will follow with the equipment."

A jumble of voices filled the radio as the men sorted themselves into their proper places. As the noise died down, the Third Mate's voice sounded, calling the captain.

"Skipper! Cantor, Frenesi and I are ready to move out! Any last words?"

"Yeah." Hudek slipped a suit-enclosed arm around one of the metal cages and, stooping awkwardly, picked up a case of paralysis bombs with his other hand. He had been dubious about their usefulness under water and now wondered fleetingly if amoebas had enough nervous system to be affected by them.

"Okay, men—Let's go! We all have sufficient oxygen for about eight hours, so we'll head away from the *'Cuss* for no more than three hours. After that, we'll start circling back to the ship."

He stepped away.

The space-suited figures moved laboriously through the blue-green water, pushing aside the clinging masses of floating vegetation. A depressing, eerie silence filled each metal suit. Every now and then a grunt would sound from one of the men carrying the bulky equipment, or a curse, coming from someone trying to extricate a boot from the thick silt underfoot, would crackle through the phones.

It was slow going and, after two hours of steady plodding, the hunting party had barely covered half a mile. They'd seen oysters with long, stalk-like legs, floating seaweed that bore thorns and roses, and they had fought off ferocious three-headed sharks, but the scouts had not

managed to contact a single amoeba.

Hudek was beginning to wonder if they were at the wrong depth for amoebas, or if the giant, one-celled animals were scarce and only inhabited one tiny section of the immense sea that covered Teardrop, when Frenesi's voice sounded, loud and triumphant.

"Thar she blows! Quick, somebody! What am I supposed to do? It's oozing out of my hands!"

At the first sound of his voice, Williams and Cantor converged on Frenesi. The amoeba, formless and barely visible in the darkness, eddied uncertainly between the three men, doing its best to avoid the light-beams.

Hudek plunged toward them through the water, making a mental note that the amoebas were photophobic. It was the first real bit of knowledge he had about them. As he arrived, the amoeba flowed swiftly between Williams and Frenesi. It had escaped the scouts, but was heading straight for Hudek!

He swung his cage in front of him and the amoeba entered blindly. Hudek clapped the cage-opening shut and yelled for the men to bring the other cage. The one he had caught the monster with was made of closely woven wire strands, the tiny holes between wires necessary

to permit easy handling of the cage in water. Even as Hudek shouted for the solid-walled trap, a needle-thin pseudopod issued from one of the holes of the cage he was holding. He swore as he watched the pseudopod widen quickly as the rest of the amoeba's body flowed into it.

Dropping the useless cage, Hudek threw one of the paralysis bombs after the retreating blob. If the bomb affected the amoeba at all, it certainly didn't slow the creature down. By the time the other men reached Hudek, the amoeba had disappeared into the gloom.

Lord Glanders was leaning casually against the mess-hall bulkhead, ignoring the scowls addressed to him by Chief Engineer McGill and Third Mate Williams, and dissecting, with obvious enjoyment, Captain Hudek's abilities and intelligence.

"For two days now, *Captain Hudek*," the sarcasm dripped from Lord Glanders' voice, "you've been trying to capture a mindless, one-celled beast. You and I may have had our differences, but I'd always assumed there was something to your reputation of being able to carry out an assignment. Apparently I was wrong. How long do you expect to continue with this

childish ineptitude? One would think—"

Hudek leaped to his feet, snarling.

"Damn you, we've done everything that could be done! We've used every mechanical contrivance known to man, and invented a few of our own! My men and I are trying to catch something no one else has ever caught, but at least we go out there and try! You sit comfortably on the ship, afraid to risk your own hide, while we—"

Hudek stopped as Lord Glanders straightened stiffly.

"Captain Hudek, you will have a space suit in readiness for me tomorrow when you go out on the hunt. I'll not have an Emp lecturing me on courage!"

He turned on his heel and strode out of the mess hall.

The three officers watched him leave and, when he was safely out, McGill groaned theatrically.

"Now you've done it, Skipper! As if we didn't have trouble enough, that misbegotten Supe is gonna come tagging along on the hunt! We won't even be able to snag a minnow!"

Hudek grinned. "Take it easy, Mac. I wanted to get him outside. I think I've figured out a way to solve all our problems!" He was strangely confident.

McGill looked up, surprised. "Don't tell me you took my ad-

vice, and decided to rub the old boy out!"

"You'll find out soon enough, Mac. The important thing right now is that you both understand exactly what you're each supposed to do tomorrow. There mustn't be any slips!"

Carefully, Hudek outlined his instructions to the two men.

Lord Glanders was having difficulty controlling the fear in his voice. "Wha-what is the plan of operations for today, Captain Hudek?"

Hudek felt a brief pang of sympathy for the man. The first time in a spacesuit was always a disturbing experience. It made a person feel completely alone, completely cut off from the rest of humanity. And the underwater environment was certainly terrifying in itself, particularly to a man who had always been surrounded by servants and comfortable, familiar conditions. Then Hudek remembered the danger that Lord Glanders represented for the men of the *Spartacus*, and thrust all sympathy from his mind.

"Three men have been out beating the water for an amoeba for almost an hour now," Hudek said. "The one thing we've learned about amoebas on this planet is that they tend, whenever possible, to avoid light. As

soon as they find one, the men will use their helmet beams to drive it in the direction of the *Spartacus*. The rest of us will wait here and try to capture it when it arrives."

Lord Glanders' beam focused on the open cargo airlock.

"Then what? The rest of us will try to drive it into the airlock?"

"We've tried that," Hudek answered. "Along with that negative phototropism I mentioned, these amoebas have a strong tendency to avoid enclosed spaces. I managed to get one into a cage for a moment, but we haven't been able to repeat that."

His helmet beam centered on a tube-like affair two crewmen were holding in readiness near Hudek and Lord Glanders.

"I've had the machine shop rig up this compressed-air harpoon. We're trying it today for the first time. When the head of the harpoon hits the amoeba, a mass of stiff wire will spread out in all directions. The person who hurls it will be attached to the other end by a long rope. The harpoon won't hold the amoeba too long, but it might slow the creature down long enough for us to get a cage around it. If the idea works, I suppose that, legally, whoever throws the harpoon would be

considered the one who caught the amoeba. I wonder if you'd care to be the one, Lord Glanders?" Hudek tried to keep a casual tone to his voice; everything depended on Lord Glanders' acceptance.

"Good idea, Hudek. If it works, I might be disposed to reconsider my intentions once we get back—"

Lord Glanders' voice was drowned out by the shouts of the men stationed outside the *Spartacus*. All light beams were upon a large amoeba swimming erratically before the beams of the three beaters.

Hudek galvanized into action. "Keep your beams off it, men! You'll drive it away from the ship! Try to channel it this way!"

Unceremoniously, he shoved Lord Glanders up to the harpoon. He could hear the Supe chattering with the fear inspired by the sight of the amorphous creature.

"Steady, man," he said harshly, tying the loose end of the harpoon's rope around Lord Glanders' spacesuited wrist. "When I give the signal, shoot; then play the amoeba like a fish on a line. We'll do the rest. Now!"

Lord Glanders snapped the trigger mechanism and the harpoon boiled through the water

and struck the oncoming amoeba. For a moment, the creature hesitated, trying to pull away, drawing the line taut. The resistance seemed to change the amoeba's non-existent mind. The line grew slack again as the amoeba began to ooze up it, right toward the Supe, imprisoned at the other end!

Lord Glanders' shriek crescendoed upward, filling Hudek's helmet with ear-shattering noise. "Hudek! It's coming after me! The rope is tied to me! What'll I do?"

Hudek had to scream to make himself heard. "Quick! Head for the cargo lock! It's your only chance!"

Clumsily, the Supe turned and thrashed through the water in the direction of the open port. The rope stretched out behind him, and the amoeba, ever narrowing the distance between itself and the man, was pulled along in his wake.

As soon as the two had entered the opening, Hudek shouted, "Okay, Mac, seal the lock!"

Without waiting to see if his orders had been obeyed, Hudek charged into the regular passenger airlock. He waited impatiently for the water to drain out of the lock, trying not to listen to the bubbling screams of Lord Glanders.

"It's chasing me! Somebody do

something, please! It's beginning to swallow me—"

Hudek ripped off his helmet, cutting off the sound of the Supe's voice. He tore down the corridors of the *Spartacus*, heading for the cargo hold.

McGill was busy at the controls of the cargo lock, a scowl darkening his features. He looked up when Hudek entered the hold, but refused to meet the captain's eyes.

"That's pretty filthy treatment, Skipper, even for a Supe—"

Hudek interrupted him impatiently.

"Never mind that now, Mac! Have you emptied the lock? Good! Open it up—fast!"

The inner port began to swing open. Hudek grabbed up a solid-walled, transparent plastic cage, which had been placed in readiness near the lock. Motioning to McGill to follow him he leaped into the airlock. He heard McGill gasp behind him.

The spacesuit containing Lord Glanders leaned against the wall of the airlock. At his feet, the quiescent amoeba formed an ankle-high puddle.

Ignoring the man, Hudek began scooping the amoeba into the container. Even with McGill helping, it took time. It was like picking up a tremendous, viscous egg.

Finally, all of the creature inside, Hudek closed the cage and the two men carried it out into the cargo hold. Hudek attached a hose to a valve on one side of the cage, and sea water began gurgling into it. McGill adjusted the dials at the cage's base, giving the amoeba the gravity and pressure it was accustomed to.

It was not until the cage was filled with water and the amoeba had started twitching back to life, that Hudek turned his attention to Lord Glanders, who had remained motionless throughout the operations.

The two officers stripped off the spacesuit. Lord Glanders was alive, but completely unconscious. They propped him up against the side of the amoeba's cage, and Hudek dropped to the floorplates with a sigh of profound relief.

McGill's temper rose as he watched the captain leisurely light a cigarette. When he could contain himself no longer, he burst out with, "All right, Abner, let's have it! What was the big idea of the whole thing?"

Hudek looked at him with mock surprise. "What's wrong, Mac? We captured one amoeba, as per agreement, that's all."

McGill gestured toward the Supe. "What about him?"

Hudek shrugged. "He was

never in danger. If he'd stopped to think for a moment, he'd have realized that an amoeba couldn't harm a man in a spacesuit. He was probably too scared to remember he had one on. All the books say giant amoebas couldn't exist because gravity and an inability to take in enough oxygen for their size would render them immobile on Earth. I figured that if we could get one out of his normal environment into Earth conditions, it would become a flat jelly pancake, and it did."

He took a deep drag on his cigarette.

"The trouble was finding some way to get him on board. I was pretty sure Lord Glanders would break and run for the ship, once he met an amoeba face to face, so to speak. All I had to do was make sure the amoeba followed him. The harpoon took care of that."

Hudek chuckled. "You know, Lord Glanders really deserves all the credit for the capture. Back on Earth, he told me to try roping or smothering the amoeba, and I really followed his advice!"

"Very amusing." Lord Glanders was awake. His voice was weak and uncertain, but it steadied as he drew on his tattered pride.

"It will be even more amusing, Captain Hudek, to watch you

writhing in my personal correction pits, once we're on Earth!"

Hudek blew a smoke ring at the angry Supe. "Terry!" he called, "you can come out now!"

The Third Mate's grinning features emerged from the observation recess over the cargo lock, used normally to examine cargo as it was being brought on board. He swung down to the floorplates, carefully cradling in his arms a mass of visual and aural recording equipment.

"Did you get it all?" Hudek asked.

"Every quiver and syllable," the Third Mate told him, proudly exhibiting rolls of film and wire.

Hudek twisted onto his side so that he was facing Lord Glanders.

"There it is," Hudek said. "Those records will be off the ship and in a safe place the moment we hit Earth. If you start any trouble for the crew of the *Spartacus*, those recordings go straight to Baron Welk. It will make your name a standing joke in every palace of the Twenty Companies. What do you say we call it quits?"

Lord Glanders straightened stiffly and opened his mouth to speak, but no words came. His face took on an unhealthy mottled cast and one hand groped blindly for the top of the

amoeba's cage. He examined the faces of the men before him and the unpitied hatred in their eyes made him flinch as from a physical blow.

He turned and walked away from them, out of the cargo lock, his shoes thumping hollowly on the floorplates. McGill began to laugh before the Supe was out of earshot, and Williams joined him loudly. Lord Glanders continued to walk, his aristocratic shoulders giving no indication that he heard the laughter, but he stumbled once, slightly, as he turned into the passageway to the main corridor.

Hudek lay on his back, still complacently blowing smoke rings.

"Looks like we've got him where we want him, boys."

He ground his cigarette out against the side of the transparent cage. He grinned at its occupant, who was eddying uncertainly around the confines of his prison.

"Lord Glanders is going to come across handsomely for this baby. I have a feeling that the next trip the *Cuss* makes will be with our people on board. Better not burn those plans for the colony, Mac; looks like we'll be using them after all!"

He rose lazily to his feet.

"Back to your posts, men. Up ship!"



the *Dissecting* table

BY DAMON KNIGHT

In his preface to *Tomorrow the Stars* (Doubleday, 1952) Robert A. Heinlein asked, "Why should so much of J. B. Priestley's reputation rest on *Angel Pavement* while *The Doomsday Men* is almost unheard of? Why was there a rage for *The Green Hat* while Michael Arlen's *Man's Mortality* made hardly a ripple?"

The answer, of course, to paraphrase Heinlein, is that in the 30's, when those books were published, hardly anyone knew what to make

of science fiction, least of all the critics whose business it is to boom best-sellers. A man who has never seen a giraffe before is not qualified to say whether it is a good giraffe or not, and his best bet is to pretend the incident never happened.

But in 1953, when almost as many people are aware that science fiction exists as have heard of the atom bomb or Marilyn Monroe, the question becomes more puzzling: why are these books unheard of now?

I have half an answer: *The Doomsday Men* is a very bad book. But *Man's Mortality* is a very good one—a rich, powerful, and essentially modern work of speculative imagination.

When I had got this far I began to wonder how many other oddly neglected science-fiction novels there were; so I made a list. It represents only a small fraction of the probable total, since my collection isn't large. These books in my judgment are not merely good enough to compete; they're among the very best ever written in this field. All of them, as far as I can discover, are long out of print, and none has ever been republished in a paperback edition.

MAN'S MORTALITY, by Michael Arlen. Doubleday, 1933. The theme is power: specifically, airpower, the power of superweapons and superspeeds, and the power of men and nations who have preferred order to liberty. History has overtaken some of Arlen's speculations, but the book is as true and as readable now as it ever was.

THE KEY TO THE GREAT GATE, by Hinko Gottlieb. Simon & Schuster, 1947. A classic science-fantasy extravaganza, charming, pathetic, profound and wonderfully funny.

WATCH THE NORTHWIND RISE, by Robert Graves. Published in England (as **SEVEN DAYS IN NEW CRETE**) in 1949; I haven't the American edition, which I think was Doubleday's of the same year. This magnificent adventure into future history, by the author of **I, CLAUDIUS**, shows the rest of us up as the fumbling amateurs that we are.

DOPPELGANGERS, by Gerald Heard. Vanguard, 1947. Power

again, in a treatment which is again strikingly modern and powerful.

SUGAR IN THE AIR, by E. C. Large. Scribner, 1937. Long one of my favorite books, this novel is science fiction in the strictest sense, but as humanly immediate and convincing as if there were not a shred of speculation in it.

I AM THINKING OF MY DARLING, by Vincent McHugh. Simon & Schuster, 1943. An absolutely delightful science-fantasy about sex, city planning, psychiatry and a thousand other things, all woven into the story of the world's most enjoyable epidemic.

ADrift IN A BONEYARD, by Robert Lewis Taylor. Doubleday, 1947. An after-world's-end story which Thorne Smith, in exceptionally good form, might have written.

In addition, there is a shocking number of excellent science-fiction novels which seem in danger of being buried without even the headstone of a single book publication. To name only a few: *The Duplicated Man*, by James Blish and Michael Sherman; *Planet of the Damned*, by Jack Vance—which, in spite of the waterlogged-pulp title the editors have cursed it with, is one of the most moving and genuinely exciting things Vance has ever done—; and Norman L. Knight's three novels and half a dozen short stories, all built around the same fascinating future history, which ought to have been published as an omnibus long before now.

Publishers—especially those who complain that they can't get enough good science fiction—please note.

Nobody could possibly be as prolific as L. Sprague de Camp looks this year, or as versatile either. His *Science Fiction Handbook* (Hermitage, 328 pp., \$3.50) is a massive dose of the inimitable de Camp formula: scholarship of an almost lunatic thoroughness, laced with enough wit and prankish good humor to kill any possible taste of dust. De Camp, I suppose, is the most didactic man alive, but he's never tackled the job of teaching textbook writers to be readable. I wish he would; if the required reading in my schools had been one-half as

palatably informative as this book, I'd be a happier and wiser man today.

De Camp's *The Tritonian Ring* (Twayne, 262 pp., \$2.95) contains a novel of the same title and three short stories, all laid in a swashbuckling prehistoric world which might be called de Camp's revision of Robert E. Howard. De Camp himself is a Howard enthusiast of long standing; still, Howard's dream-stuff must have irritated him occasionally for its stubborn refusal to take into account that a sword must be forged, that a king must have subjects, and in short that men are not made of gingerbread nor cities of spun sugar.

De Camp's love for swordplay and pageantry has never blinded him to any of these facts, as people lucky enough to have read *Divide and Rule* or *The Stolen Dormouse* know without being told. For those who haven't, one example will do: Howard handed his barbarian hero a steel blade, without worrying about where it came from. De Camp, considering that steel would be as anachronistic as a wristwatch, hands his a bronze-bladed sword—and shows him carefully straightening out the dents in it after each encounter.

The three short stories in this volume are all minor, but the novel is something special; don't miss it.

Tales from Gavagan's Bar, by de Camp and Fletcher Pratt, contains the respectable total of twenty-three stories, all dealing with supernatural goings-on at Gavagan's. This is a long way to stretch a gag; I think a little too far. Some of the tales, like *Elephas Frumenti*, *The Green Thumb* and *Caveat Emptor*, are purely wonderful; others like *The Love Nest*, with its totally improbable exit line, are good stories that give the impression they didn't want to come into Gavagan's in the first place. The book is adorned by Inga Pratt's delightful line drawings, and by the weirdest jacket-photo-of-the-authors in publishing history.

Twayne has also reissued Fritz Leiber's *Conjure Wife* in a slender volume by itself, apparently from the original plates, and for what reason I can't imagine; the present version, 154 pages long, is offered for \$2.75; *Witches Three*, containing Pratt's *The Blue Star* and James

(Continued on page 160)



"I thought you said we were the *first* expedition!"

RAIN CHECK

BY JUDITH MERRIL

She was beautiful and desirable and all the men liked her. She had her troubles though, she found it *impossible* to take her clothes off and she hated rain. . . .

It was raining when I got off the train.

If I had half the sense they seem to think I have, I'd have oozed back up the steps and gotten myself dried off and pulled together again in my bedroom before anybody even missed me.

Just let them handle things their own way: I'd have found out just as much, I guess, slower, but a lot easier.

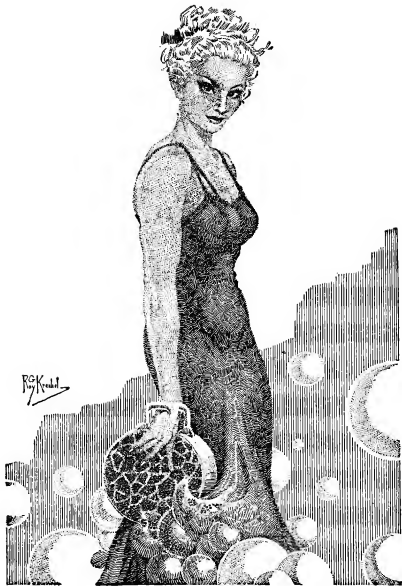
Only I couldn't do it the easy way. I had to get out on my own, and have a look around, before I had any way of knowing how much of what they told me was on the level. I had no standards of comparison, after all; I couldn't tell whether Landrin was a particularly trustworthy human or not.

Now I'm afraid *he* doesn't trust *me*, and that's too bad, be-

cause at this point I have only admiration and respect for him. I think a lot of the trouble was that he kept overestimating my brain-power, and didn't really appreciate what I could do with my body.

Like getting out of that bedroom, and off the train. They were taking me from Project headquarters near the spaceport, where I'd had three weeks of asking and answering questions, to the Capitol, to meet the President, before they decided what to do with me. We had a super-secret private express, with a room specially built in for my "comfort." Meaning, they thought, for my confinement.

Actually, I could have gotten off any time. I waited for the train to stop just because I wanted to see a city. Even a Top Secret express has to stop occa-



sionally for fuel and such; just after midnight there was a half-hour halt in some semi-big city in what they call the "mid-west." I was off the train five minutes after it stopped, and would have been back *on* five minutes later if I knew what was good for me. Instead, I huddled into a shadow on the platform, damp and cold and unhappy, looking like a large package that I hoped nobody would decide to pick up and toss into a baggage car.

I had to stay there longer than I expected. A large package can't just walk out of the shadows while anybody is around to watch. I waited till there was a break in the freight traffic, and a passenger train on the next platform was discharging some people on the opposite side. Then I walked up the platform, and through the gates into the station.

Inside, the big waiting room was almost empty, and too quiet under the glaring overhead lights. The little restaurant, with its slow-moving, white-coated waiters, was silent and empty too. I felt too conspicuous; I wasn't too sure about how I looked, either. Through the plate-glass window, and through a haze of everlasting rain, I could see the lights of an all-night diner across the street, so

I braced myself, and ducked out into the wet.

It was too bright inside the diner, too. But at least it was full of people, truckdrivers and late-party couples and such, all talking at once, noisy and absorbed in each other. I could watch and listen, and they'd be less likely to notice me much.

I found a stool at the far end, and the counterman came right over to me. "Wet enough for you?" he asked jovially.

I choked back an impulse to tell him specifically and in detail just how much *too* wet it was. Instead, I smiled. He was trying to be friendly, after all.

"What'll you have?" he asked. I was concentrating on drying myself off, and I didn't answer right away. "Why don't you take the raincoat off, sister?" he said, leaning half-way across the counter, as if he was going to take it off me.

"Oh, that's all right," I said quickly. "It's. . . it's a new kind of plastic. Dried right away, see?" I showed him where the last few drops of moisture were still evaporating.

He shook his head admiringly. "Damnedest thing!" he said. "What won't they do next? Coffee?" I nodded. "Something with?"

"Just coffee right now."

He turned away to get it, and

I relaxed a little. He'd had me going for a minute there. Rain makes me nervous anyhow. I don't *like* wet weather. If I'd known it was going to be like this, I'd never have left home. I'll admit, I was looking forward to it beforehand; if the vapor content here on Earth was anything like what I found on the ship, I couldn't be happier. But it's been raining ever since I got here, and from the way the local yokels don't even seem to notice it, I wouldn't be surprised if that's all it ever does.

"*Wet enough for you?*" That's a *joke* around here!

Anyhow, by the time the counter-man came back with my coffee, I'd had a chance to look around and check on what the other girls in the place were wearing. There was a big mirror on the wall too, and when I opened up the raincoat, my sweater and everything seemed to be all right, so I slipped out of the coat and sat on it.

Then I thought maybe I'd made a mistake after all. The man just wouldn't go away. Other people came in, and he'd wait on them as quick as he could, and then come loping back to where I was sitting, and strike up a new conversation each time.

Real bright, too. Like: "Well, how do you like the big city?"

Or, "You sure are a quiet one, aren't you?" Or he'd keep getting back to the raincoat, and shake his head and talk about how wonderful it was, the things they could do these days, even with a war on.

I just agreed with everything he said. I told him I'd just got into town, and I didn't know yet where I was going to stay. He suggested a couple of rooming houses; wrote down the addresses for me, too, and said to tell them, whichever one I went to, that I was a friend of Mike Bonito's.

"I sure will," I said. "Thanks a lot." I smiled again. I was beginning to realize that I didn't have to talk much if I smiled a lot.

"Say," he said, "you know, you're a real nice kid. I thought at first you were a showgirl or something. But you sound like you're really right off the farm."

I smiled.

"You're real cute, too," he said, only he wasn't looking at my face when he said it. By that time I'd realized there wasn't anything *wrong* with the way I looked. His interest in my sweater was something entirely different. I started to smile, and figured maybe I'd better not, this time.

"Well, thanks," I said.

He grinned. "I bet you are a

dancer, though. Or a model. Or that's what you come here for, anyhow."

"How did you know?" I murmured, and opened my eyes wide at him.

"How can you tell?"

"I know a lot of gals like that," he said. "I'm a Civil Defense warden, and I have to go around to everybody's house in my district and make sure their shelters are all set up right. . . you know? . . ."

I nodded.

"Lots of boarding houses around my way," he went on, now that he was assured of my interest. "That's how come I could help you out with a place to stay. They kind of have to be nice to any friend of mine. . . you know?"

"Mmmmmmm," I said understandingly.

"Well, you'll always find a lot of pretty gals in those places, trying to make time in the Big Town. Only I don't think there's any of 'em got as much on the ball as you have, kid." He leaned across the counter again. His breath smelled bad, but I didn't think I ought to lean back away from him too much.

I smiled. Then I figured it was about time for me to say something. "I'm a Civil Defense warden, too," I told him. "At least I was back home." That

was pretty much true, too. "But I bet it's a lot different here."

"You can bet it is, sister! Out in the sticks, you ain't got anything *like* the problems we got here. Can you imagine a *single block* with a hundred and more houses on it—and from ten to, say, fifty people, or maybe more, in every one of them houses? That's what *I* got to take care of?"

"My goodness!" I said, and meant it. Frankly the thought made me shudder. My opinion of the level of human civilization was going rapidly downhill. Fortunately, he leaned back right then, and I could breathe again, which helped some. He hadn't even noticed how I was holding my breath.

"That's right," he expanded, under my obvious admiration. "Thirty-five hundred people on that one block alone, and a lot of 'em dames that'll get hysterical and panicky the first minute anything happens. We get a lot of training for just that kind of thing—judo and all."

"You *do*?" I said.

"That's right." He nodded gravely. "Hate to have to think I'd ever have to muss up one of them gals, but you know how it is. . . ?" He pursed his lips over a grin, and wound up with a sort of hungry judicial look. "Can't let people get out of hand

at a time like that. Got to keep control of things. Matter of fact," he told me, lowering his voice a little, "lately it's got so they call on the C-D force for regular police work and that kind of thing. Maybe we're 4-F's, but that don't mean we're a bunch of pretty little flowers, like some people think. You'd know better anyhow, wouldn't you? I bet even out on the farm, a warden has to be able to get tough sometimes."

"Oh yes," I murmured. "Yes, indeed. But nothing like here in the city, I'm sure." I smiled, but this time I worked at it. I was getting interested. "What kind of— *police* work do you do? I mean, did you *personally* ever do anything like that? It must be exciting. . . ?"

"Believe you me," he said, "I could tell you things, kid! Matter of fact. . . ." He paused and looked doubtful. I let my smile fade away and tried looking wistful. "I just might be able to let you in on a big thing," he said slowly, and I got the impression that his hesitation was genuine. "I dunno. . . . a lot of the other wardens are girls, though, and it's not supposed to be too dangerous for *them*. . . ." He looked me over again. "You don't seem like any weak sister, travelling around on your own this time of night. . . ."

I just sat there and stopped breathing again, waiting to see what would come next.

"I tell you what," he said. "You got your badge on you?"

"It's in my suitcase," I said quickly. "In the station. I left it in a locker."

"We-l-l-l-l. . . you just sit tight a minute, kid. I got to wait on that guy. Just wait a minute and I'll be right back"

"All right," I said, and watched him go. He waited on the new customer, slower than usual, and looking worried. But he didn't get out of sight at all. Finally he came back, and began inspecting me carefully again, especially my sweater.

"Now I'll tell you what we'll do, kid. . . . say, what's your name, anyhow? You never said."

"Anita," I said. "At home they call me Annie." Then I was sorry I'd said it; too close to the truth. I had to watch out for that. It's hard to remember not to tell the truth.

"Pretty name like that," he said, "it's a shame to spoil it. I'll just call you Nita, okay?"

"Sure," I said. "I like that better too." He didn't know how much!

"Okay—Nita. Now listen. You can't go anywheres till it gets light out anyhow. I get off here around seven. Supposing you just settle down in a booth and

make yourself comfortable till I'm done. Then I can give you a hand with your bag, and see to it you get a decent place to stay, see?"

"That's very friendly of you," I said, and he chuckled.

"You're a real cute kid, you know that? *Real* cute!" He laughed again, and got that hungry look back. "Now you just find yourself a spot where you're nice and comfy. That corner booth's pretty good. You could even take a little nap if you wanted to. Then we can get you all set up later on."

"Thanks," I said. "Thanks a lot." I picked up my raincoat and slid off the stool and tried not to sound too interested: "Say, what was all that you were saying about some kind of excitement. . . .?"

"Well, frankly, to tell you the truth, it's kind of Secret and Confidential. You know? I hate to be sort of sticking to the rules this way, but the fact is I got to see your badge first, before I could tell you any more. Not that I don't trust you," he added hastily. "It's just—well, I might as well admit, I take my responsibilities kind of seriously, and—I'll tell you all about it later, I promise you kid. After we get your stuff, and I see your badge, you know?"

"Sure," I said. "Sure, I know

how it is." I smiled at him again, and settled down where he showed me, in the corner booth. But I didn't go to sleep. I waited till he went in back, where the phone was, and then I slipped out quickly.

Out into the rain again. It just doesn't *ever* stop raining here.

I went back across the street to the station, and right near the storage lockers was the big sign I'd remembered seeing. It had the usual sort of stiff-looking man-and-woman picture on it. I wonder what it is about those poses that appeals to people. Anyway, it had a woman standing in an open doorway, with an apron over her dress to show she was a housewife, and silly-looking little curls all over her head. She was smiling, but she looked doubtful too. The man seemed to be trying to persuade her to let him into the house. He looked neat, and very respectable, and he was holding something out in his hand for her to see. Underneath, there was a facsimile of the C-D badge, and a warning about not admitting anyone who claimed to be a warden without seeing his badge first. The paragraph below that was all about the Impersonation Robberies that had been going on in the city.

I memorized the badge, and then looked at the picture again.

The man certainly didn't look much like my new friend over in the diner. No pimples; no protruding Adam's apple; none of the bones-sticking-out look the counterman had. Crisp, curly hair on this one, and a nice square face, and a straight, well-shaped nose. I had to laugh, the way people kid themselves on this planet.

There was a ladies' room downstairs where I could close a door, and make what I needed. I had a little trouble at first with the suitcase, but I found if I sort of rested it against my leg when I set it down, I could manage all right. I was tempted to make the thing look good inside as well as out—so it would open, and be full of different kinds of clothes. But that would have taken too much time, and it really wasn't necessary. It was much more important to make sure the badge was just right—and on account of having memorized it from the sign, instead of a real one, I kept getting the letters of F-A-C-S-I-M-I-L-E mixed up with my name.

When I had it looking right, I put it in my pocket, and then I took a good long look at myself in the mirror. My hair was messy, and my lips weren't quite the same kind of red as the other women I'd seen. I fixed that, and then remembered to

make a comb and a lipstick to account for it.

Finally, I went back upstairs and looked out across the street to the diner. But it was still raining—naturally—and I couldn't see anything through the droplets across that distance.

I thought it over and decided to go back. This counterman, Mike, seemed to be sincere in his interest. There was no reason, really, not to trust him. I had my identification now, so if *he* didn't trust *me*, that could be taken care of too. And at worst, if he was suspicious enough already so that he *had* phoned in about me. . . . I wasn't really worried about getting away whenever I wanted to.

He looked up when I came in, and seemed relieved and happy. Well, that could have meant anything.

"Hi, honey," he said. "I thought you'd run out on me."

"Oh, no! I just went over to get my bag. I wanted to—you know—comb my hair and everything."

"You look real good," he said appraisingly, and I was quite certain I'd been right about coming back.

"I got my badge, too," I told him when we got over to the corner booth, where the other customers couldn't hear us. "I

guess you got my curiosity all worked up. . . ."

"Ain't that just like a woman?" He burst out laughing, and I stopped worrying altogether. "Can't wait five minutes to hear something. Boy, I bet you're a great one over the back fence!"

I let that pass. Not good to ask too many questions. I smiled again, and pulled out the badge, and showed him my name and picture. He didn't even try to take it away from me. I just held it in my hand, the way the man in the poster did, and everything was just fine.

"I hate to be such a stickler," he said, "but you. . . ."

"Sure," I said. "I know. I mean—well, would you mind if I asked to see yours, too?"

He grinned and went back around the counter and fished in his jacket pocket, and came back with it. Just like mine. MIKE BONITO, it said in big letters, with his picture in the middle.

After that, of course, we were what you might call bosom buddies—fellow wardens in defense of our country, I mean, and all that sort of thing. Eventually, he even got around to telling me about the big excitement; he just wanted a little coaxing first.

It was exciting, all right; just how much Mike couldn't possibly know. Seems he'd had a phone

call about half an hour before I came in, giving him a description and hardly anything more:

"White, male, about thirty years of age in appearance, medium height, brown hair, blue eyes, clean-shaven when last seen. No distinguishing marks. Brown suit, brown shoes, tan trenchcoat. May be using any name. Known to be expert at disguises."

That last line threw me, when he showed me the message, scribbled on the back of a menu. I couldn't see why they'd bothered to hand out a description at all—but I guess they had to start somewhere.

I kept my giggles to myself, and showed Mike a straight face. "How do you find somebody like that?" I asked.

"Just run in anybody who answers the general description who doesn't have papers in good order," he said. "You stop and think about it a minute, you'll see it's not so tough, really. An average-looking young guy like that, out of uniform, isn't so hard to spot nowadays. And then he's either got a 4-F or a Sci-Class card. I happen to know this fellow hasn't got either one," he added mysteriously.

I nodded. I had given the matter more than just a minute's thought, after all, and I knew he was absolutely right. An aver-

age-looking man, sort of like the fellow on the C-D poster in the station, only not so handsome, was a fine thing to be when you were being politely kept under lock and key by a bunch of other average-looking guys you wanted to get along with. But if you wanted to get around on your own at a time like this, it wasn't the best possible shape to have. So I nodded, and expressed genuine agreement with Mike's reasoning.

That was almost all he knew, though. I smiled and nodded and agreed with him most of the time for half an hour, whenever he wasn't waiting on somebody, and the only other thing I could find out was that the order to find this man had come through C-D from some Top Classified scientific group, and that it had priority over just about anything and everything.

I'd just about decided that I could relax and start exploring this new world without worrying, when the phone rang in back, and Mike mumbled some apology and went to answer it.

He came back with a new gleam in his eye. "That was from H.Q.," he told me in a stage whisper nobody could have missed for a block around. "That business I told you about is getting hot now. There's a big meeting. . . . listen, it's quitting

time now. I'll tell you about it outside. Let's get out of here, kid."

Outside, in a cab on the way to the first address he'd given me, he told me there was going to be a meeting for all city wardens at noon that day, to give them more background on the manhunt, and that he'd gotten permission for me to come along. C-D is a Federal outfit, after all, and the local bunch was glad enough to get any extra help they could, with something big on their hands.

"Just so you're a qualified warden, they said they didn't care *where* you came from," Mike told me gleefully. Then he sprang his big surprise: "That is, as long as it wasn't Mars!"

"*Huh?*" He got the reaction he was looking for, whether he understood the reasons for it or not.

"That's what I said, kid. Now, look, I don't know for sure who this guy is they're looking for, but you put two and two together, see, and you'll get four every time. This Sci Project that put the priority through—the Chief just told me on the phone that it turns out to be the Mar-ship bunch. You know—the ones that were plastered all over the headlines a couple of weeks ago."

I nodded. I'd seen some of the newspapers after we landed. . . .

calling Landrin the "Pioneer of the Planets," and me. . . what they didn't call *me* they missed up on just out of ignorance or lack of imagination. The most popular nickname seemed to be BEM, though. Short for Bug-eyed Monster. Landrin *said* it was a joke. Of course, the reporters didn't have much to go on; they never saw me or talked to me, because even before we touched Earth, I was classified as a military secret.

I tried to get some more information out of Mike, but I had to give up, finally, and decide that he just didn't know any more. "They'll give us all the rest of the dope at the meeting," he said. "That's what it's for." Then he looked very serious, and added: "Under oath of secrecy, of course." At which point his arm moved forward a little on the back of the seat, and he started to lean toward me. It had been bad enough across the counter; I just couldn't take his peculiar personal odor of dental decay any closer.

"My goodness," I said, stretching with both arms so he had to pull back to keep from getting a fist in the face. "I'm so sle-e-e-py."

I used the same basic defense pretty convincingly when he wanted to help me "get settled" in my room at the boarding

house. I *couldn't* let him help. I'd seen human reactions to suitcases that wouldn't open a couple of times on the train, and I wasn't having any of Mike Bonito and his enthusiasm kicking and picking at *me* that way!

"I'm not even going to unpack now," I told him. "Just get some sleep." He followed me in just the same, and I managed to dump my raincoat on a chair, put my suitcase down in front of it, and drop into it myself pretty convincingly, I think, without making it too noticeable that I never quite lost contact with either of my "possessions."

"Yeah," he said. "I guess you must be kind of knocked out." But he didn't leave. He just wandered around the room, opening and closing his mouth as if he was going to say something and then changed his mind each time. He'd stand over at the window looking out at the rain with that *hungry* expression again. Then when he turned toward me, he'd seem angry. But all he said, finally, was: "Okay, kid, have it your way. Tell you what—I'll pick you up a little early. Say, around eleven. Then we can have some time to get acquainted a little bit—you know?"

"Sure," I said. "That sounds just fine."

He started toward the door,

and he seemed to expect me to walk over with him. I couldn't do it, of course. I had to stick with the suitcase and raincoat. So I smiled and started muttering some kind of apology, but as soon as I did that, he switched directions, and began heading toward me again. I turned off the smile, and he turned back toward the door. Just as simple as that.

"I'll call on my way up," he said before he closed the door, and I thanked him, and heaved a sigh of relief as I heard it latch closed behind him. I'd gotten soaked through, those three hours on the station platform, and all the time in the diner, I hadn't been able to get dry much below the surface. Then, even the short trip across the sidewalk from the cab to the doorway had been enough to get me wet clear through the skin again.

I made sure the door was locked, and then spread out on the floor till I was properly dry again. When I pulled myself together, I felt better. I didn't really believe yet that the rain was just going to go on and on. And I still felt I'd been too sheltered by the government people: told only what they wanted me to know, and given an entirely too rosy picture of what this world was like. I didn't want to

go home with the wrong information. And I might as well admit that I was sort of intrigued by the developing situation: getting in on the hunt for myself, so to speak.

I had more than three hours right then to think and plan. Instead, I sat around resting, and examining myself in the mirror in different kinds of clothes, and speculating idly on what I'd already seen and heard, and on what might come next. If Landrin needs any further proof that I'm not the super-genius he seems to think I am, that ought to give it to him!

At eleven o'clock promptly, there was a tap on my door, and the landlady said I was wanted on the phone.

"Do you know who it is?" I called out. I had to change from a suit I'd been working on to something a person would sleep in before I could open the door. I remembered an outfit I'd seen on an advertising billboard, and got it about right, I think, before I opened up.

"Well, now, ordinarily I wouldn't ask," Mrs. Rayburn was saying. "I'm not the kind that pries, I want you to. . . ."

That was the point where she got her first look at me in my new negligee. She gasped, and her eyebrows arched suddenly into two high inverted V's. At

first, I thought I'd done something wrong. But I could see myself in a long mirror in the hall, it looked just like the illustration on the billboard. Then I realized what a sap I'd been. The difference between the man on the C-D poster in the station, and Mike Bonito in person, for instance. I wasn't dressed for sleeping, but for modeling an advertisement.

Mrs. Rayburn caught her breath again, but her voice was tight and cold now: "... I want you to know, but I know Mr. Bonito's voice when I hear it. He told me to tell you, in case you wasn't up yet, and I see you're not dressed to come downstairs, he's comin' right over, an' I don't mind telling you myself, even if it's Mr. Bonito, I'd rather not have my young ladies entertain gentlemen in their rooms when. . . ." She looked me up and down again, and couldn't seem to find the right words. "There's a parlor downstairs!" she added, and turned on her heel, sniffing.

"Thank you," I called after her. "Just tell him I'll be ready, will you?"

She sniffed again, without turning around, and I closed the door, feeling relieved about that parlor. It would solve some problems—like what happened to my suitcase.

I was underestimating Mike, though. It took me about three minutes to change to a suit, with the raincoat draped over my arm again (it was *still* raining), and the reconstituted C-D badge in my pocket, along with lipstick and comb. This time I remembered that girls carry handkerchiefs too. I was just ready to go down when Mike knocked at the door.

I didn't let him in. Just stepped out, and smiled, and said I was starving, and couldn't face anything till I'd had a cup of coffee.

From the way his face fell, I realized I'd done something wrong; and then I remembered that men always have to pay for things when they're out with women. I felt kind of bad about that, but after all, a cup of coffee doesn't cost much.

We went on downstairs, and he stepped out, while I stood bracing myself for the plunge into the rain again.

"There's a pretty decent place right down here at the corner," he said.

"Let's run!" I started doing it, so he had to too. When we got in out of the wet, I told him, "I just *hate* rain!"

"Doesn't seem to hurt you any," he said, and then he decided to stop being irritated, and smiled. "Some girls come all

apart at the seams the minute they get a drop of water on 'em. You know—their hair comes down and everything I guess your hair is natural.”

“Well-l-l-l. . . .” I smiled again.

It took us long enough to eat so we had to take a cab downtown to the meeting, and that was perfectly all right with me. I didn't have any trouble keeping Mike from getting too close in the cab either. I was learning how to manage things like that more easily.

The meeting was held in the auditorium of a big building apparently used exclusively by the Civil Defense organization. There were about three hundred people there, mostly wardens, and mostly women. Everybody had to show his or her badge on the way in, and when Mike came up with me holding his arm, they asked a lot of questions, and wrote down the name and address I gave them, and called over a couple of people who were sitting up on the platform to find out if it was all right, before they'd let me in. Finally a big man with almost no hair and a quivering belly came over, and mumbled a few words, and nodded and smiled at Mike. Then they let us in. Mike told me the big man was the local Chief of C-D, and that he was the one who'd given permission for me

to come in the first place. We found a couple of seats together, a little too far front for my taste. But Mike seemed to enjoy the attention we got walking down the aisle. I don't know whether it was me they were staring at, or whether it was the special attention from the Chief that made us noteworthy.

Either way, I wasn't too happy about it.

We were almost the last ones to sit down. The Chief went back up on the platform, and began talking right away. We had been called together, it seemed, to assist in what was “perhaps the most important single effort being made in the country at this time, on behalf of the war effort.”

He went on that way for a while, then announced that we had a *very* distinguished visitor, who would explain everything in just a few minutes—but first, the Chief just wanted to say how pleased he was at the response to a meeting-call issued on such short notice, and . . .

And he went on like that for the next twenty minutes. Apparently a public meeting was conducted according to the same set of misrepresentations as billboard advertising. People were not supposed to say exactly what they meant, or mean exactly what they said.

When the distinguished visitor finally came out onto the stage, it was all I could do not to slither down in my seat and trickle out the nearest exit . . . in spite of having been pretty sure who it would be. I knew that man entirely too well; it was almost impossible to believe that he had no sense organs with which to identify me. Just *looking* different was enough!

"Ladies and Gentlemen of Civil Defense," the Chief rumbled, "I want to introduce to you now our National Security Chief—Mr. Alan J. Landrin!"

An awed murmur ran around the room, and there was a scattering of hand-clapping before Landrin held up his hand for silence. By that time, everybody present realized that something important really was going to happen.

Landrin cleared his throat loudly, and started talking.

"Ladies and Gentlemen: I don't want to take up too much of your time or mine. There's a big job to be done, and it's got to be done fast. If we don't find our . . . our *man* . . . right away, there's a good chance we may never find him at all.

"And let me tell you all right now: *Finding the . . . person . . . we're looking for may well be the key to victory in this war.*"

He paused to let that sink in,

and it was obvious he wasn't kidding.

"Now let me give you a little background," he said, and I only half listened while he explained to them how I was "captured" by the Mars expedition and brought back to Earth. Mostly, I was trying to figure out this "key to victory" business. At least it explained why they had been working so hard at convincing me how lovely everything was here. They wanted me to be on their side. But *what for?* That, I couldn't figure.

I started really listening again when he said, "I'd like to be able to tell you at this point just what a Martian really looks like, but I can't. Not from first-hand experience, anyhow. Because by the time I met him—or her, or it—when the ship landed, the Martian wasn't exactly a Martian any more . . ."

I won't try to remember the whole speech here. He wasn't nearly as quick about it as he'd said he would be. But he did get the basic information across—to me, as well as the others.

Martians, he explained to a hushed room full of people, were featureless, spongy-looking creatures, in their native habitat. Featureless, that is, until they needed some particular organ of perception or manipulation or protection—at which

point it would *appear*. A mature Martian, however, has about the same total mass as a human, and they—we can change.

Believe it or not, in all the time I'd been in contact with the scientists on the ship and in the labs, I'd never realized that was the thing about me that the Earthmen were most interested in! They had questioned me closely about practically everything else; in fact I'd almost gotten the notion that it was somehow *impolite* to discuss shape-adaptation. Seemed to fit with a lot of their notions of propriety anyhow.

I was wrong about this— As I soon found out.

"We don't honestly know whether our alien friend makes its body changes consciously or unconsciously," Landrin said. Well, they never asked! "However the changes occur, they are designed to provide the organism with a maximum of adaptability to, and control over, the surrounding environment. Including, of course, protection from any perceived dangers . . ."

If you reproduced battle conditions, for instance, around a Martian, it would change itself promptly to the best protective form. Then you could design equipment for human soldiers that give them the best chance for survival. He brought up that

example, along with a few others that gave me the damp shudders again.

And in between the things he said, there was a lot he left unsaid that I began to understand. Like why they had worked so hard at giving me a rosy picture of everything in this country. I guess Landrin thought that was too obvious even to mention; but he wound up his speech with some vague and threatening sentences about the dire possibilities if such a creature, because of "inadequate information," were to get loose without understanding the nature of the conflict in progress on Earth.

Suppose, he suggested, the Martian was somehow tempted over to the enemy? Or, even more vaguely frightening, suppose it took nobody's side but *its own*?

"We have absolutely no way of knowing," he finished grimly, "what further powers this creature may have, nor how much it might be able to accomplish single-handed."

I pulled out the handkerchief I'd so thoughtfully included in my "equipment," and covered my nose quickly to hide my grin. Landrin is a pretty smart guy, mostly: I wonder how he figured that I could get "captured" back home on my own terrain, and still worry about me being such

a menace here on this waterlogged excuse for a planet?

Everybody else in the room was looking very impressed, though, so I decided the logical flaw was inherently human. People started moving around restlessly, as if the meeting were about over, but then the Chief stepped up again, and they all settled back, not too patiently, to listen some more.

He went off on a long rambling discourse about the procedures to be followed in hunting a Martian. Real silly stuff. If you're looking for somebody who might be any shape, size, or color, and you're not naturally equipped with—well, not having it, Earth doesn't have a word for it either—call it "personality perceptors," it's almost impossible to know where to start or what to do. And the more the Chief talked, the clearer that became.

People were moving around and whispering, not paying much attention.

"Could be a dog even," I pointed out to Mike. "Anything at all."

He furrowed his brow.

"I don't think so," he said slowly. He really *was* thinking, too. It was kind of interesting to watch; I hadn't known he could do it. "Nope. I just don't think so. This Martian, see, he

adapts to the best possible form for his environment. You know? Well, man is the best possible form for this environment here on Earth. You can start out with that much. So this Martian would be some kind of a man. That's how I see it." He nodded with satisfaction.

"I guess you're right," I murmured, and just then somebody came out on the stage with a slip of paper and handed it to the Chief. He stopped talking in the middle of a sentence, almost as if he'd just been keeping it up till he got the message, whatever it was. Then he said, speaking faster and louder and more purposefully:

"Meeting adjourned! If you will all please file out individually through the single door on the left-hand side of the auditorium, and display your badges again, you will receive individual assignments in the waiting room inside. Please have your badges ready, and form a single line." He stood there and watched as the rush for the door began. "Single line, please. Have your badges ready."

For a moment I was worried again, and then I noticed nobody seemed to consider this sort of amateur dramatics as at all unusual. Remembering the "oath of secrecy" and the "confidential express," I decided this was just

a typically human way of doing things.

Just the same I was relieved when nobody challenged my badge, or tried to take it away from me. They just checked my name off the list where they'd written it when we came in, and went on to the person in back of me.

Mike and I stepped forward to the next line, where people were waiting in front of a desk for folded slips of paper that must have been their "individual assignments." Frankly, at that point, I was getting a big kick out of the whole mystery-romance feeling of the thing. Maybe I was beginning to feel pretty important, too.

So was Mike, because while we were standing there, the Chief came over, looking friendly and jovial. All the other wardens were watching, and you could see Mike Bonito's social standing climb away *up*. It turned out, though, that he'd come over mostly to talk to me; to tell me that since I wasn't one of their regular wardens, they didn't have a special assignment for me. I was to just keep my eyes open, and tag along with Mike if I wanted to.

I stepped out of line, and the Chief took my arm, and nodded to Mike. "We'll meet you out at the front door," he said.

Mike said nothing, but I could see, as we walked away, that he was angry and pleased both.

We strolled out through the main hall in a leisurely fashion. The Chief introduced himself; his name was McKenney, but I was to call him Jack. He thought it might be nice if the three of us went out for a beer or something. I smiled and agreed. We got up to the front door, and it was *still* raining. Not hard, like it had been before. What they call drizzling.

I guess I should have tried harder to get used to the rain. But when you come right down to it, I didn't *want* to.

I stalled. I wasn't going out there any sooner than I had to. And from what I'd seen of men here, I figured what the Chief wanted was for us to get out quick, before Mike showed up. All I wanted was to stay inside as long as I could. McKenney kept edging me toward the door, and I ran out of little things to say, and then I started making a big production out of putting on my raincoat. I don't know; maybe I'd begun to believe in that raincoat myself; thinking somehow it would help keep me dry.

And McKenney, *naturally*, tried to take it away to help me put it on.

The trouble was I wasn't ex-

pecting that. I clutched at the sleeve, and he tugged at the rest, till the only part that was touching me anywhere was the sleeve in my hand.

Then he pulled harder, and I realized he wasn't just being polite.

Did you ever try to pull off a finger or a toe? It's not easy. But if you pull as hard as Chief McKenney was, it can *hurt*.

I couldn't help myself. Frankly, the answer to Landrin's question about whether adaptability is conscious or unconscious is: *maybe*. Or you might say: *sometimes*. If I get hurt, I react. Sometimes I stop to think it out; sometimes I don't.

He tugged just once too many, and my "raincoat" turned into blubbery goo, and slid right through his fingers back into me. McKenney went over backwards; there was a lot of him, and he fell hard.

I had plenty of time to get away before he got back on his feet. But all of a sudden, the lobby was full of people, running and shouting, and . . .

And in the other direction there was just the rain.

Then there were half a dozen people hanging onto parts of me, while my clothes went gooey and reassembled, and . . .

I'll never forget the look on one starched lady's face when

my sweater started dissolving!

Or the thoughtful look on Landrin's face when I finally got myself pulled together enough to be led back to the office where he was waiting for me. I got just annoyed enough, when I realized he'd planned the whole thing, so that I didn't tell him much. I just kept on being a girl. I still am. It's kind of fun, because they can't help treating me like a girl, even though they know what I really am.

Men on this planet certainly do treat their women well. Of course, I can only speak from personal experience, and I guess being blonde and what they call beautiful helps. The bosom shape seems to make a difference in the courtesy extended too.

Anyhow, Landrin gave me a big sales talk about how much better off I'd be sticking with the scientists and government people after this, and I just kept nodding and agreeing—and smiling, which seemed to bother him too.

After a while he realized I was just being polite, agreeing all the time like that. "All right," he said tiredly. "What do you want? Name your terms."

I told him. "I want to go home."

He didn't believe me. He's going to talk to me again tomorrow. Meanwhile, I'll bet he's

putting in a bad night worrying about whether I'll still *be* here tomorrow when he comes looking for me.

I will *be*.

Only I can't see how a man like Landrin, who was smart enough to catch on right away when he found out there was a girl in the audience who claimed to be a warden from another city (He wired to the town I claimed to be from, and made McKenney keep talking till they got a reply. He was the one who figured out the rigamarole that kept me from suspecting anything too; also, it was his idea that the raincoat was probably part of me.) I don't see how a man like that can be so dumb

he doesn't realize why I let him catch me at all.

Oh, he's got the idea by now about why I got captured the *first* time, back home. We really don't have enough water on Mars. It's getting sort of hard to get along; we have to have strict rules about population control, and things like that. We thought maybe we could *use* this planet. So I came along to have a look.

But nobody told me it was going to be raining *all* the time. I think maybe we'll wait a million years or so until the place dries up a little.

There's such a thing as having too damn much!

I want to go home.

THE ANSWER TO THE OLDEST S-F ARGUMENT

U. S. Air Force experimenters have twice produced a non-gravity situation for jet pilots without ill effects of any consequence. Two separate groups of flights were made, one at Edwards Air Force Base in California and the other at Pattersan Air Force Base, Ohio.

A predetermined flight path was followed by jets; the speed and angle of their fall neatly cancelled out the pull of gravity. The pilots experienced the weightless sensation of free fall for varying lengths of time—up to a maximum of forty-two seconds. Pilot Burt Crossfield at Edward A. F. B. was befuddled during his first no-gravity flights, but during later flights the sensation disappeared.

The men who were the subjects of these tests were all experienced pilots, used to the changing sensotions of flight. Whether passengers would also react this way is not known. It must be remembered that mice used in earlier free tests were very disturbed by the absence of gravity.

FANMAG



By **CHARLES LEE RIDDLE**

Steve Curtin and I were sitting up in my den the other night over a nice glass of beer discussing the fannish way of life. Naturally, since I had this article to write, and it being uppermost of mind, we started to talk about what I could say that hadn't been presented so excellently before, by Bob Silverberg and Bill Venable in the two previous stanzas of this series.

Bob gave a very good background of fandom and the personalities in it; Bill discussed its formation and the whys and wherefores of fandom excellently. And as I told Steve, anything that I could add to it would be rather useless. He gave a suggestion that I talk about the one thing I think I know something about—fanzines and their problems.

This seems to me to be a very good topic for discussion. Fanzines are springing up all over the place these days. Every day there arrives a new one for me to read and try to write something about to the editor. In the past six years that I have been publishing my own fanzine, PEON, I think that I have had a pretty good cross-section of the fannish population as readers. With that thought in mind, I'd like to give you some odds: it's a 50-50 chance that you have (1) already published a fanzine; (2) are thinking about it; (3) have received a fanzine today or yesterday; or (4) have in your possession a letter from the editor of a fanzine asking for material. If you fall into categories 1, 3, or 4 above, you might not be interested in the follow-

ing remarks; but if you are a number 2, then pay heed!

So you *are* thinking about publishing a fanzine! It's a stage that most of us go through sometimes while engaged in reading science fiction, and it's nothing to be ashamed of. But did you ever think of some of the problems you're going to face? Let's look at them a bit.

First, why are you publishing a fanzine? You like to see your name in print? You have an urge to express your ideas, viewpoints, opinions to the public? You like to work with printing presses, mimeograph machines, etc.? All of these go into the makeup of a fanzine editor, but the whole thing boils down

to one thing—a fanzine is nothing more than the expression of an editor's ego. No matter how hard you try, you're not going to be even a poor imitation of the prozine. Unless of course, you have scads of money to invest in a printing press, linotypes, proof-readers, printers, and what-have-you that goes into a publishing house. If you have scads of money, why in the devil are you thinking about a fanzine?

However, I seem to have digressed a bit. Let's go back to the original assumption, the one where you've decided to take the plunge and join the fraternity of fanzine editors. Good for you! What sort of equip-

☞ Lee Riddle will shatter all the illusions of the neofen and nonfen who picture the fan mag editor as a scrawny precocious juvenile of thirteen with thick glasses and a macrocephalic pate; an intellectual delinquent who takes out his hatred of mankind by drowning them in the products of his warped mind. The editor of the attractive and always interesting zine, PEON, is a family man of mature years—a CPO in the navy. The reader can be assured he knows whereoff he speaks regarding fandom and fan publishing.

To those who came in after the feature started—FANMAG is a regular department of SCIENCE FICTION ADVENTURES. The current fan magazines are judged for quality and interest by the staff of SFA. On this basis an editor is picked to write an issue of FANMAG, the choice of material is up to him.

Fanmags that aren't seen can't be judged. If you edit a mag—send it in. The judges' decision is final and in case of duplication both submissions will be cremated.

ment do you have to produce your magazine? Fanzines have been known to be handwritten, individually typed, and scrawled on the back of postcards. However, you should want to issue more than five or ten copies of each issue, so let's assume that you have access to a machine that will reproduce 50 to 100 or more copies. It could be a hectograph, a ditto machine, or the true fanzine producer—the mimeograph machine!

Now that we have the mechanical end fixed up, what have you decided to publish in your fanzine? Are you going to design it purely for one of the limited-membership groups (FAPA, SAPS, 7APA, etc.)? Or, are you planning to reach the masses? Are you going to have a fanzine devoted entirely to letters discussing the general ways of life in fandom (letterzine); or will it be one devoted to news of the pro and fan world (newszine); or, do you think you will just concentrate on putting out one combining the best of the latter two, plus general fiction and articles (generalzine)?

For the neo-editor, I would suggest that you try the generalzine-type fanzine. It combines the best of all the types above, gives you a chance to ex-

ercise your editorial powers, and will introduce you to a larger number of readers.

Choose your title with care—if you want to make sure the name will remain in the minds of the reader. Of course, you'll probably want to identify it with science fiction somehow. There's plenty of stars, planets, and heavenly bodies that haven't as yet given their names to be fanzine titles, so I'll leave that up to you.

So what have we decided upon so far? We've the type of fanzine you're going to publish, the number of copies, and how it will be reproduced. Now all we have to do is to find something to put in it.

There are several ways of doing this. You can write everything in it and make up a host of different by-names; you can pester your friends to "write something" for your pride and joy; or you can contact the various other editors and fans whose names you see in different letter columns and ask them for an article or story or poem to appear in your fanzine. One thing you will immediately notice in their replies—most of them will jump at the chance to see their name in print. I will automatically assume that you are a discriminating editor and will have the will-power to re-

ject those manuscripts that you deem not suitable for your sterling offering.

In your letters requesting manuscripts, you've probably given a date that you plan to publish your fanzine. Live up to that date or shortly thereafter as you possibly can. Nothing is more disheartening to the writer than to send in his requested work and then wait and wait and wait to see it in print.

Let's now jump a few days (or weeks) and finally you have run off your fanzine and have it all assembled. Now you are ready to address the mailing wrappers and envelopes, but you have run into a problem—who is going to get them? Naturally all your relatives will receive a copy, possibly a few friends you can afford to lose by giving copies to, and of course, all your writers are going to get one or two copies. But that usually leaves a big stack of fanzines waiting to be mailed out. What in the world are you going to do with them? It's easy—just mail them to the fans appearing in the letter columns of the various prozines.

So you've finally mailed out the last few copies of your darling, and now you're waiting for the postman to bring in scads of money for subscriptions. Boy, are you going to be in for a shock! Oh, sure, you'll get

some subs—even some money, but nothing approaching the money you've poured into your fanzine—and here, we go back to my original statement—a fanzine is nothing more than the expression of a fanzine editor's ego. It's a hobby, if you will call it that, and as such, you're going to have to support it like one.

But the enjoyment you will receive from receiving letters from the readers commenting on your fanzine will more than pay for its cost—both in money and hard work. If you work hard on your hobby, you might some day be recognized as one of the leading fanzine editors, and I wish you all the luck in the world!

THE NSF AND FAPA

There are a few items of interest that I would like to call your attention to. First, the National Fantasy Fan Federation has recently completed its annual election. Don Susan (who was backed by the retiring president, Bill Venable) received the nod to head that organization for the forthcoming year. The NFFF is a worthy organization and has lots to offer the average fan, and if you're interested in hearing more about it, drop me a line at 108 Dunham Street,

Norwich, Connecticut, and I'll be more than happy to send you an application blank.

Also holding an election was the Fantasy Amateur Press Association. Bob Silverberg was elected president; William Rotsler, vice-president; Redd Boggs, secretary-treasurer; and Charles Burbee, the official editor. This is the organization for the fanzine publisher more than the average fan, with the membership being limited by its constitution to only 65 members, and with a usually long waiting list. If you are interested in more information, write to Redd Boggs at 2215 Benjamin Street N.E., Minneapolis 18, Minnesota. He'll be very happy to give you the straight dope, and at the same time will probably send you an application blank.

Those of you who have attended the annual science fiction conventions in the past know how much fun they can be. The one down in Philadelphia last year, while not planned very well, program-wise, offered an excellent opportunity to meet those people you have been reading about and perhaps writing to for some time. Well, there is going to be another one this year, out in San Francisco, and since it will be held in conjunction with the annual Westercon at the same time, it promises to

be one of the best yet. I'd suggest that you send in your membership right now, so the convention committee will know how much money they can have to plan with. The usual fee of one dollar is being charged, for which you will get your membership card, the usual pre-convention newsletters, etc. If you're inclined to pass the buck, then pass the buck to S. F. Con., P.O. Box 335, Station A., Richmond 2, California.

AUSLANDZINES

Since Bob Silverberg gave a few reviews of some of the American fanzines, I think it is only fair that I should call your attention to some of the efforts put out by fans across the Atlantic and the Pacific. After all, science fiction fandom is international in scope, and fanzines are published in all parts of the world, although I don't ever recall in all my years of reading fanzines of having heard of one from behind the iron curtain—but it's possible!

Due to currency restrictions imposed by their native countries, many of the fans who publish fanzines overseas have made arrangements with certain U. S. fans to receive subs and monies for them, and then buy stuff for them in the U. S. from

those receipts. Most of them also will take one or two current U. S. prozines in exchange for sample copies of their fanzines.

ANDROMEDA is one of the best fanzines coming out of England. It's published by Pete Campbell, 60 Calgarth Rd., Windermere, England, and you can receive four copies for a dollar sent to Dave Rike, Box 203, Rodeo, California. The current issue at hand (#3) contains 53 neatly mimeographed pages, full of interesting articles, fiction, crossword puzzles, and fan news of the English scene.

Published by the famous (or should I say in-famous) Walt Willis is HYPHEN. If you like humor, then this is your dish. It's more of a personalized zine than most U. S. fanzines are, but I think you'll like reading it as much as I do. Walt will send you two issues for one U. S. promag or s.f. pocketbook, and I believe you won't be wrong in sending for a copy. The address is 170 Upper Newtownards Road, Belfast, Northern Ireland.

Another large size fanzine from England is the official organ of the Nor'-West Science Fantasy Club, and edited by Eric Bentcliffe, 47, Alldis St., Gt. Moor, Stockport, Cheshire, England. The Christmas issue was the best they have published so far, had around 60 pages,

partly printed and partly mimeographed. Besides the usual club news, they manage to publish one or two very good articles each issue. Again, a U. S. prozine or s.f. pocketbook sent here will bring you a sample copy.

Possibly one of the most interesting fanzines to come from overseas recently was ALPHA, the official organ of the Antwerp Science Fiction Fan Club. It's printed in both English and Dutch, and would make a very different addition to your collection. Even if you can't read Dutch, it's fascinating to try to pick out what you can from the book reviews! Send the U. S. prozine for a sample copy to J. Jansen, 64 Fort II Straat, Wommelgem, Belgium.

The Australian fans are also becoming very busy these days, what with some five or six fanzines being published quite regularly from down under. They've even formed an organization down there devoted to helping the fanzine editor of Australia in producing his fanzine. However, they've recently enlarged the scope of the organization (AFPA) to the entire field of fandom, and have brought out a fortnightly publication, entitled ETHERLINE, devoted to club news and notes from all over Australia. If you'd

like to keep up with the happenings down under, I suggest that you send a dollar bill (yes you can do this to Australia) to Ian J. Crozier, 6 Bramerton Road, Caulfield, Victoria, Australia, and request copies of *ETHERLINE*, and also *QUESTION MARK*, the more generalized fanzine published by AFPA.

I've tried in the limited amount of space that I have to bring you a few news notes of what is happening in s.f. fandom these days. One person

can't do it all by himself, and if you'd like to keep up with the news, a subscription to *FANTASY TIMES* will do the job for you. A dollar will bring you a number of issues, full of what's new in the world of books, magazines, personalities, etc. Send it to James V. Taurasi, 137-03 32nd Avenue, Flushing, N. Y.

And in the meantime, watch *Fanmag* for other interesting items about fandom in general. Better still, become one of us yourself!

THE SCIENCE IN SCIENCE FICTION

(Continued from page 5)

a fact, theory or gimmick and extrapolates what might grow out of it. Un-science fiction takes a little scientific twist or a pseudo fact and ends the story with it. The story is then plotted in reverse so that the twist or pseudo fact comes as a surprise ending. The story may be superficially well written, but it has no guts. It may help to pass a vacuous hour, it will not stimulate interest, cause controversy, excite imagination—yet these are the things that give SF its vitality and *raison d'être*.

This trend towards un-science is not a minor schism, it is a major threat. At least one SF magazine exists almost completely on this type of fare. This may be a small thing in the big world; but it is a big thing in the little world of science fiction. There is a great difference between *WORLDS IN COLLISION* and *LIFE ON OTHER WORLDS*. If most science books were like the former we would be in a sorry plight. If most science fiction was un-science this vital form of literature, as we know it, would be dead.

Harry Harrison

183RD CONGRESS

BY ROY H. MILLENSON

Only once in many years does an editor have the opportunity of presenting an article that is a landmark. The author is a Congressional employee with a keen insight into governmental problems. Here he presents an accurate glimpse at the Congress of the future.

The electro-magnetic gavel sounded hollowly in the Chamber of the House of Representatives. It had been installed in 2025 A.D. as a compromise between the liberal Southern Republican-Farm Democratic coalition and the powerful conservative bloc from New York City on the question of machine voting in the House (the Senate had settled this the previous year by a similar compromise—installing an automatic bell system for the calling of page boys), and the Speaker of the House sounded it quickly again as the members of the House filed into the chamber, the male members taking their seats to the right and the women to the left. Un-

der the Reorganization Act of 1998 the practice of dividing seating in the House according to party was eliminated as anachronistic and replaced by a geographical arrangement whereby members east of the Mississippi were seated on the right of the Speaker and those from west of the Mississippi on the Speaker's left. However, after the German Wars of the early twenty-first century and the necessary increased participation of women in government, the Congress was again reorganized and divided according to sex (the Kinsey Act of 2098 A.D.).

Excitement was rife as the Premier of Texas (Texas had

been given commonwealth status along with Britain and other semi-independent areas as part of the Russian Reconstruction Act of 2055 A.D.) was to later address a joint session of the House, Senate and Executive Offices.¹

As a result of the public demand that television facilities be installed in the Capitol so that legislative sessions might be seen in every home in the country, by amendment to the original legislation televue screens were installed in the House and Senate galleries on which were shown citizens from representative parts of the nation, thus bringing the public into the gallery itself. These televue screens now showed a huge audience and all five members of the press gallery were already in their seats.² After the chaplain had delivered the usual half-minute invocation,³ a formal resolu-

tion was adopted to permit the joint session and the ninety-six Senators (one for each state) and 73 Executive Officers filed into the House chamber, flanked by their military, naval, air and press advisers in full-dress uniform, making a very colorful scene indeed. After the address in the Capitol, local officials were scheduled to present the premier with the keys to the city at the traditional ceremonies to be held at the Acheson-MacArthur Memorial Arch which had been erected, it will be recalled, in 1976 during the Era of Good Feeling.

Upon recommendation by the Psychological Advisory Board that soothing music would aid legislators at their work, loud speakers had been installed throughout the Capitol in 2013 A.D. As these Muzakphones blared forth a trumpet call, silence descended upon the throng and the Texas Premier entered escorted by the Chairman of the House American Activities Committee, the Chairman of the Senate Interplanetary Relations Committee and other dignitaries. For almost 150 years, prior to the Cattle Rollback Agreement of 2150 A.D. Texans had subsisted mainly on a diet of beef, thus restricting their growth and the Premier was, like most of his fellow Texans,

¹The Third Constitutional Convention, in the year 2144, had created a supplemental body in addition to the House and Senate known as "Executive Offices," membership of which was composed of the heads of such independent agencies as the Non-Veterans Bureau, the National Matrimonial Exchange Service and the Sargosa Extracting Authority.

²Owing to the extensive popularity of columnists and broadcasters with direct Government connections, "surface coverage"—as reporting directly from the spot had become known—fell into general disrepute and was utilized for background and historical purposes almost exclusively.

³Setting a maximum of one-half minute for the opening prayer had been the chief result of the anti-filibuster and debate-restriction drives of the late 1900s.

rather small of stature. The crowd, according to the custom adopted after the 27th Yankee-Dodger series in 2063 A.D., hooted and booed to show its approval. He wore the traditional costume; high-heeled boots, gold-spurs and a 20-gallon hat.

The Texas Premier's address had been anticipated for some time. A strike in the canning and quick-refrigeration industries had resulted in food riots in many communities. Disaster had been narrowly averted only by an intensive propaganda campaign extolling the virtues of unprocessed fresh fruits and vegetables. And now all were awaiting the long-expected announcement of the offer of economic assistance by Texas to the United States. H. Long Cassidy, chief of the Texas Information Bureau, had carefully leaked to key news outlets the contents of this speech and it came as no surprise to either the Congress or the public. A loan of one mil-

lion bucks⁴ would be made for the improvement of manufacturing, transportation and storage facilities and young United States technicians would receive training in such skills as tele-view repair, music and lyrics for advertising and propaganda and other worthwhile fields.

After the Premier's address the Senators and Executive Officers departed and the House returned to session. The first speaker was the delegate from the Principality of Brooklyn.⁵ "Mr. Speaker," he shouted, "what about a reduction in taxes?" The Speaker looked down and smiled. "That, Mr. Delegate," he replied, "will have to wait until the future."⁶

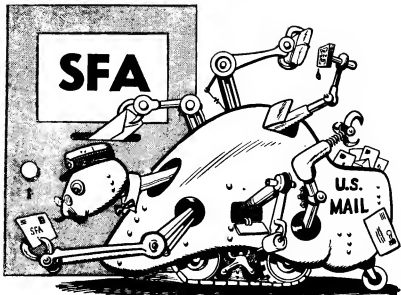
⁴After the inflation of the twentieth and twenty-first centuries the value of the buck had come to equal \$7,500. Strict credit controls and a studied devaluation had brought this down to the 2151 A. D. level of \$7,025 to one buck.

⁵No footnote actually necessary here. Even in the mid-twentieth century one could see this coming.

⁶A similarity to previous sessions will be noted here.

CRIME IN THE YEAR 50 B. C.

Whodunnit fans as well as legal enthusiasts can puzzle over a little execution that took place 2,000 years ago. The bodies of a Teuton man and a girl have just been dug out of a peat bog in Schleswig, Germany. The girl's head was shaved and she was blindfolded, the man had a noose of hazelnut vine around his neck. The tannic acid in the swamp had preserved the bodies and internal organs, though the bones were completely dissolved. They had been executed by fellow tribesmen.



THE CHART ROOM

Where Readers Help Us Plot Our Orbits

The Tenn article seems to have stirred up a good deal of controversy. We couldn't possibly include all the letters received, so by careful editing, extracting, abstracting and butchering we tailored a few to fit.

Dear Editor:

Congratulations on William Tenn's **THE FICTION IN SCIENCE FICTION** in your March issue. I think it is the clearest exposition of both writers' and readers' attitudes and problems that I have yet read. Both practical and intellectually and aesthetically sensitive. . . .

Victor Ricketts
1020 Waverly St.
Palo Alto, Cal.

Editor:

Man is this man Tenn ever wrong, I do not agree with him on one point. . . .

Lloyd Fitzmaurice
(no address given)

Dear Harry:

. . . Tenn's article was interesting although I disagree with him on a few points. . . .

John G. Fletcher
347 Oak Road
Glenside, Penna.

Dear Harry,

If a young writer like myself who's sold only three shorts and one novelette so far can disagree with an able old hand like Tenn, I will. If this should see print

back to back with a rupture easier ad, I might someday blush at these opinions, but as Redd Boggs says, this is believed by Jim Harmon 1954.

Will contends that scientific errors aren't important in a story. Well, I wouldn't go so far as to suggest disembowelment for the offending writer but maybe he should be made to read some of his own stuff. As you can see, I don't believe in capital punishment, just sodism.

A little scientific error is like a little adultery—the camel's nose is an irresistible force and the tent isn't an immovable object. Mr. Tenn gives several examples where "scientific errors" wouldn't matter, but let's examine just what the extent of "scientific" and "errors" are.

First off; the stories Tenn lists are all novels, and as we literary type fellows who have read Meredith or de Camp know, the function of the novel is different than that of the short story. Most science fiction falls into the short story class—including many novelettes, novellas, and novels. Short stories are supposed to give "a single effect"—often this is pure nausea but that mars my argument so let's not consider that.

Almost everybody has a smattering of science in this technical age, and if you make a mistake they often unconsciously feel something is wrong, and the effect is spoiled.

A novel doesn't have to produce such a single effect, but rather, a generalized impression. An error in one element of a novel will not spoil the whole, but if the story is riddled with errors the weakness would have its effect. How does Tenn know that Heinlein's *Beyond This Horizon* or Pohl's and Kornbluth's *Space Merchants* would be as good if they were less consistent? Writers of that scope don't give a fellow much chance to find out if they would be as good if they were less accurate.

Another point: those two stories and the others Will mentions deal more or less with social sciences. Naturally, an error in engineering isn't going to be as important in these stories as it would be in a tale dealing with more technical sciences such as in Campbell's *The Moon Is Hell*.

No more so than if Campbell has said in that story that everybody over sixty-five should be shot—an error in social science, but not fatal to the technically based novel.

Finally, William Tenn is guilty of one of those excesses he damns we of fandom for. I can not agree that science fiction is *The Literature of the Future*. I think science fiction is and will be *One Literature of the Future*, but I don't believe it will be or should be the smotheringly predominate means of literary expression. Mundane literature complements the freedom of scientific thought and artistic expression found in science fiction, and no doubt they will continue to complement each other so long as men continue to amuse each other with the storyteller's art-craft.

Well, I guess I'll try reading some of the stories in SFA now.

Jim Harmon
427 E. 8th St.
Mt. Carmel, Ill.

Our apologies to Mr. Harmon for cutting out large chunks of his letter, but it was too long to print in its entirety. We have passed the uncut version on to Mr. Tenn for consideration . . . and possibly comment?

Dear Editor:

I've been reading science fiction since the age of ten, (I am now 32) and consider my awareness of the world's essential unity due, to a large extent, to the global viewpoint engendered by this type of literature.

There is a friction and on inertia to many of the people of the world; they will not or cannot realize the meaning of the term *world citizen*. They cannot see past the imaginary boundaries of nationalism. Science fiction readers seem to have none of this national myopia. Most stories of the future take for granted a single world state; the readers go along with this.

Today, the very first steps are being taken to bring about this united world. I am myself forming the *World Citizen Party*. This will be unique in the annals of political ventures in that it will be supra-national; it cuts across all national,

color, racial and economic lines. Any of your readers who are interested in this can write me at the address below.

It's one world or none, that is our hope for the future.

Garry Davis
270 Park Ave., Rm. 613C
New York 17, N. Y.

World Citizen Garry Davis has a good idea here, we wish him good luck in his endeavors. SFA readers will agree, I'm sure, that the One World is long overdue.

Editor Harrison,

. . . Haven't had time to read any of the stories yet but they look pretty good. Fanmag is a good feature, keep it. And Daman Knight was his usual biting self, personally I think he is one of the best STF reviewers whose reviews I have read.

One more thing before I forget. I am 14 years old and consequently am not in much with fandom. As a result of this I would like to know if there are any fan clubs in my immediate vicinity that I could join.

If I remember correctly there is nothing more I can say so until I decide to write you again I remain,

Barry Hovey
10115 So. Grand Ave.
Los Angeles, Cal.

Predatory Lafen—take him away . . . and see if you can't get him to read some of the stories.

. . . your new feature FANMAG is very good. Will be looking forward to it each issue.

Marvin J. Edwards
1052 Merrimac Rd.
Camden 4, N. J.

. . . and speaking of fen—your name shall be honored as highly as that of Ghu for your insight and downright thoughtfulness in giving us that most outstanding feature, FANMAG.

Carol McKinney
277 East 1st North
Prava, Utah

For these kind words we thank Ghu.

In the department section, I think "Fanmag" will go a long way. As far as I know, there have only been review columns in the past, never such an operation as this. Good luck. I have only one suggestion here in regard to the departments. A change of name seems to be in order. Mr. Knight's "Dissecting Table" should be more appropriately titled "Vivisection Table." I have never seen a nastier scalpel so expertly wielded. You can almost hear the agonized yowlings as he tears the Mss to shreds.

(The name and address of this letter's author have been lost. If he will write, due credit will be given.)

With this kind of encouragement FANMAG can only continue as a regular feature and, we sincerely hope, maintain the high standards it has set so far.

NO HOME SHOULD BE WITHOUT ONE

Do you have trouble finding sulfur? Do you suffer from a terrible urge to chuckle of little yellow chunks of this vital mineral? If you do you should have a tritilog.

The Consolidated Engineering Corporation of Pasadena, California has come up with this space-opera title to describe their new invention. The tritilog is a mechanical nose that can smell sulfur compounds in the air, no matter how faint they are. Important in personnel protection and in research on corrosion and odors, triti' con detect one part of sulfur in 10,000,000.

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- Abnormal sex organs and what can be done
- How to overcome male's early climax
- Blunders made by men in sex act. How to avoid them
- Technique of first sex act at bridal night
- Delaying sex life's finish
- Male change of life and its effect
- Causes and treatment for male and female sterility
- Why women fails to obtain climax
- Male and female reaching climax at same time
- Feminine Masturbation
- Causes of sexual excitement in men
- How male organs function during intercourse
- How female sex organs function during intercourse
- How sexual desire in woman differs from man
- Four movements of woman's perfect complete orgasm
- How sex activity affects weight of male and female
- How to derive perfection in sexual act
- How to use love play towards greater satisfaction in sex act
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THE DISSECTING TABLE

(Continued from page 124)

Blish's *There Shall Be No Darkness* in addition to the Leiber story, was a bargain at 423 pp. and \$3.95. Like the other recent Twayne volumes, this one is poorly printed and bound.

Another Leiber book, *The Green Millenium* (Abelard, 256 pp., \$2.75) is even more disappointing. Laid against the same cultural background as Leiber's *Coming Attraction*, it bears about the same relationship to that brilliant short story as Hollywood's *Frankenstein Meets the Wolf Man* to Mary Wollstonecraft Shelley's *Frankenstein*.

Readers of this magazine already know that C. M. Kornbluth's *The Syndic* (Doubleday, 223 pp., \$2.95) is one of the most powerful and exciting novels of the year. This is sociological science fiction, the exasperatingly difficult type of which more is talked and less written than any other. What passes for genuine sociological speculation is mostly counterfeit: crude analogy, gimmicked-up history, burlesque or parody. Kornbluth has written those, too, but this is the real thing—an imagined society that meets the tests of a real one: that it's based on its own unique premises and has its own rationale; and this—wherein lies the trick—with such conviction that the reader can, indeed, must imagine himself living in it.

Ballantine, a company that's becoming the devil and all to keep up with, has issued a volume of three stories by Ray Bradbury: *Fahrenheit 451* (199 pp., \$2.50). The title story is a long (145 pages) expansion of his 1950 *Galaxy* novella, *The Fireman*, principally achieved by adding one new character—a girl who, like the ghost of Hamlet's father, drifts onto the scene from nowhere in particular and drifts off again without having done anything or contributed anything to the story at all, except to pull the whole thing together and give it meaning. From one of the weakest of Bradbury's anti-machine-age stories this has become, I think, one of the most compelling. In *The Playground* Bradbury returns to his one subject, but from the opposite direction; the author of *R Is For Rocket* and *Hail and Farewell* has here assembled such a collection of nauseous, and perfectly accurate, images of childhood as I hope I may never see again. And in *And the Rock Cried Out* his principal theme recurs. Disguised as a morality story for Anglo-Saxon chauvinists, this tale is as obscurely terrifying as Kafka, and for the same reasons. The theme is self-destruction.

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